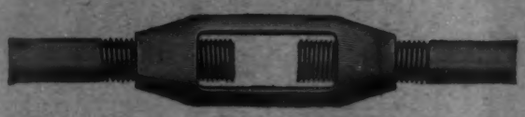
The American Artisan
And Hardware Record

Vol. 56. No. 3. CHICAGO, JULY 18, 1908. $2.00 Per Year.

TURN BUCKLES



A full line of Bolts, Bolt Ends, Rivets, Lag Screws, Nuts, Washers and Carriage Hardware.

COLUMBUS BOLT WORKS, COLUMBUS, OHIO.

WIZARD
ADJUSTABLE HINGE HANGER

Made of best quality Malleable Iron. The two sets of Steel Roller Bearings reduce friction and make an exceptionally easy running hanger. Lateral and Vertical adjustment. No special track required. *Ask your jobber or write us.*

SAFETY DOOR HANGER CO.
Manufacturers
Ashland, O., Hamilton, Ont., Can.

"NEVER-BREAK"
TRADE MARK

Catalog Free

"NEVER-BREAK"
STEEL SPIDERS, GRIDDLES AND KETTLES

WILL NOT
Scale Off like cheap enamel.
WILL NOT
Scorch or Burn like light fry pans and skillets.
WILL NOT
Absorb Grease or Flavors like cast iron.

THE AVERY STAMPING CO.
CLEVELAND, OHIO
Sole Manufacturers
"NEVER-BREAK" Goods.

GET THE LIVE LINE
"AMERICAN SEAL"
Elastic Oil Roofing Cement, Stove Putty and Asbestos Furnace Cement
For Furnaces, Stoves, Ranges and Roofs.
Jobbers write to-day for prices

THE
Wm. Connors Paint Mfg. Co.
Makers. TROY, N. Y.

Eastern Agents: Friedley-Voshardt Co., 194 Mather St., Chicago, Ill.
Southwestern Agents: Stockhoff Supply Co., 107 N. Main St., St. Louis, Mo.

DELTA
TRADE MARK DELTA
SEE PAGE 57
FILES OF QUALITY
FILES

This Space for Sale.
Inquire of Daniel Stern,
355 Dearborn St., Chicago

The Hardware Merchant who sells good goods
SELLS ORIGINAL
MATCHLESS
Floor Hinge, Jamb Hinges and Hardware Specialties.
If your jobber cannot furnish them, write us.
LAWSON MFG. CO.
40 Dearborn St. Chicago, Ill.

PULLMAN SASH BALANCES

Are you selling them?
IN USE EVERYWHERE
Send us your orders
PULLMAN MFG. COMPANY
SOPHIA STREET
ROCHESTER, N. Y., U. S. A

"APART" BONES "COMFORT" RAZORS
The best bone and the best razor on the market. Made from the finest materials.

Also a full line of Cutlery, Razor Strops and Hardware Specialties.
S. R. DROESCHER
79 Warren St., New York, N. Y.

More than 300 years ago Shakespeare said:

"Oh, what paupers our doubts and fears make of us."

To-day Piccolo, the great Business Doctor says:

"In discouraging times the majority become discouraged and less energetic, while the minority *work and prosper.* It is up to you to work and win while the majority are sitting by the roadside waiting for better times."

We have taken the advice of these two great authorities and prospered by it.

FOR 1908 WE HAVE BUILT

A New Line of Base Burners—The equal of any and great sellers.

A New Line of Cook Stoves—A little in advance of any on the market.

A New Line of Steel Ranges—Worth a $5 bill more than we ask for them.

In addition to this we have added minor improvements all along the line. And our Salesmen's Orders show that we are profiting by it,

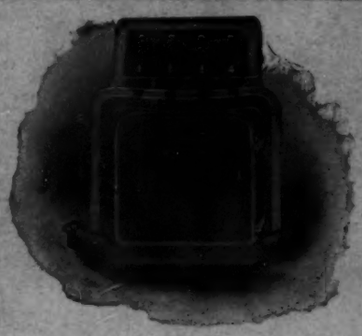
Perhaps it may be that our Prices help to keep things "Coming Our Way,"

You know we enjoy all of the advantages of making stoves in Pittsburgh. This tells both in prices and wearing qualities.

Stove & Range Co. of Pittsburgh

PITTSBURGH, PA.

THE ONLY STOVE MAKERS IN PITTSBURGH



SEE THIS

Base and Firepot!

All the Trade are Talking About It.

Write Us for Our Catalogue and Full Description.

PATENTED.

We are now making our
GAS TIGHT,
STEEL DOME
CRUSADER and
ADMIRAL FURNACES
With Our
PATENT
SQUARE POT and
SQUARE BASE

BOYNTON'S SOFT COAL CRUSADER FURNACE

The BOYNTON FURNACE CO.

207-209 Water St.
NEW YORK

147-149 Lake St.
CHICAGO

"Quick Meal" Steel Ranges

ON BASE OR ON FEET AS DESIRED

The Original "Triple Wall" Steel Range. Original in design and general construction. Made to be distinctly different from other Ranges. Built to secure the best results from the fuel used and best wear from the material in the Range. The strength is placed where needed and not in places to attract attention. A careful comparison will show why the "Quick Meal" Range has proven such a profit-maker for the dealer.

RINGEN STOVE CO.

DIV. OF AMERICAN STOVE CO.

ST. LOUIS, MO.

SAN FRANCISCO, CAL. **Indiana St. Between 20th and 21st.**

MONITOR

RADIATOR

THE BASE BURNER
WITH FIVE FRONT FLUES
THE STOVE THAT
WILL PRODUCE

RESULTS

WE NOT ONLY CLAIM
OUR "RADIATOR"
TO BE THE BEST;
BUT WE PROVE IT!

SEND FOR
DESCRIPTIVE
MATTER

ONLY STOVE OF ITS KIND MADE

This is not only the most modern and bes Base Burner on the market, but its construction is entirely original.

THE MONITOR
STOVE & RANGE COMPANY

MAKERS

CINCINNATI, OHIO

MORLEY BROS., Saginaw, Mich., Distributors for the State of Michigan.
GREAT WESTERN STOVE & REPAIR CO., Minneapolis, Minn., Northwestern Distributors.
THE MORLEY-MURPHY HARDWARE CO., Green Bay, Wis., Distributors for the State of Wisconsin.
PAXTON & GALLAGHER CO., Omaha, Neb., Distributors for the States of Nebraska, Wyoming, Western Iowa, and the Black Hills.
HIBBS & FLEMING, Los Angeles, Cal., Distributors for the State of California.

Our Strictly New Furnace

Built to the Hour

A Powerful Perfect Worker

OUR NEW ONE

WHATEVER IS GOOD, NEW AND MODERN IN FURNACE MAKING HAS BEEN CONSIDERED IN THE PLANNING AND BUILDING OF THIS FURNACE. * HEAVY STEEL PLATE IS DESIRABLE FOR QUICK HEATING WE HAVE IT IN THE LARGE RETURN RADIATOR. * HEAVY CAST IRON IS DESIRABLE FOR DURABILITY IN FIRE SECTION, WE HAVE IT THERE. * LARGE DOORS ARE DESIRABLE, WE HAVE MADE THEM LARGE. * PROMPT RELIABLE ACTION IS ESSENTIAL, THEY ARE HERE CORRECTLY AFFORDED.

THERE IS NO MORE SATISFACTORY FURNACE THAN THIS. THEY MAY TIE IT BUT THEY CAN'T BEAT IT. HEAVY STEEL HIGH RETURN RADIATOR WITH CAST TOP AND BOTTOM. ASBESTOS PACKED JOINTS EVERYWHERE. BIG FIRE-POT, BIG ASH-PIT, BIG CLEAN-OUT, BIG DOORS GROUND TO PERFECT FITTING. HEAVY SEPARATE GRATE BARS. DUST TIGHT. GAS TIGHT. A VERY COMPLETE MODERN FURNACE THAT WILL SATISFY BOTH YOU AND YOUR CUSTOMERS.

WALTER S. RAIT & CO.

211-213 Lake Street, CHICAGO, ILLINOIS.

THE SUCCESS OAK

The Handsomest, the Best Working and the Best Heating Oak Stove Made.

The Success Oak is a fuel saver, a quality that appeals to all buyers. There are air tubes passing down both sides inside the steel body and drawn into a Gas Ring, which extends around the top of the fire-pot so that the fresh air, by the time it reaches the fire, ignites the black smoke and gases. This means a big saving in fuel and is only one of the decided advantages this stove has over all other oak stoves.

The Fire-pot is heavy, the Base large and the Stove is absolutely air-tight.

The Success Oak can also be had with fittings which permit of the hot air pipe being extended into the room above, throwing as much heat into the second floor as a furnace would.

WRITE TO-DAY FOR OUR CATALOG.

SHERIDAN STOVE MFG. CO., Quincy, Ills.

BAKER'S RADIATOR

The latest creation in square heaters and a **wonder for all-round service.** All the modern features of first-class heaters are embodied in this stove as well as distinctive features of its own which give it points of merit not to be found in other stoves of similar construction.

BAKER'S RADIATOR is Absolutely Air-tight; has a one-piece Combustion Chamber; Check Damper in Top; Shaking, and Draw Center Grate and Hot Air Attachments for Heating Upper Rooms.

It makes a fine appearance, the nickel parts being of the latest and most beautiful designs in ornamentation.

Our Catalog may be had upon application. Write for it.

Snyder & Baker Stove Works

BELLEVILLE, ILLINOIS

Foster's Winner

A Steel Range with all the latest improvements of practical value. This is a range which embodies many distinct and valuable features which mark it at once as the most serviceable as well as the most durable range on the market.

The Body is made of heavy, polished, Wellsville Steel, strongly riveted every two inches, and lined with asbestos throughout. Balanced oven door. Swing ash pit door. Wood extension firepot. Duplex grate. Heavy cast linings. Cast encased reservoir with large enameled tank. Full sized ovens.

Just what the Trade is looking for, a range of superior merit at prices which are right.

Write for Catalog to-day.

The Foster Stove Co.

IRONTON, OHIO

VAN'S

Patent Improved Wrought Steel Portable

RANGE

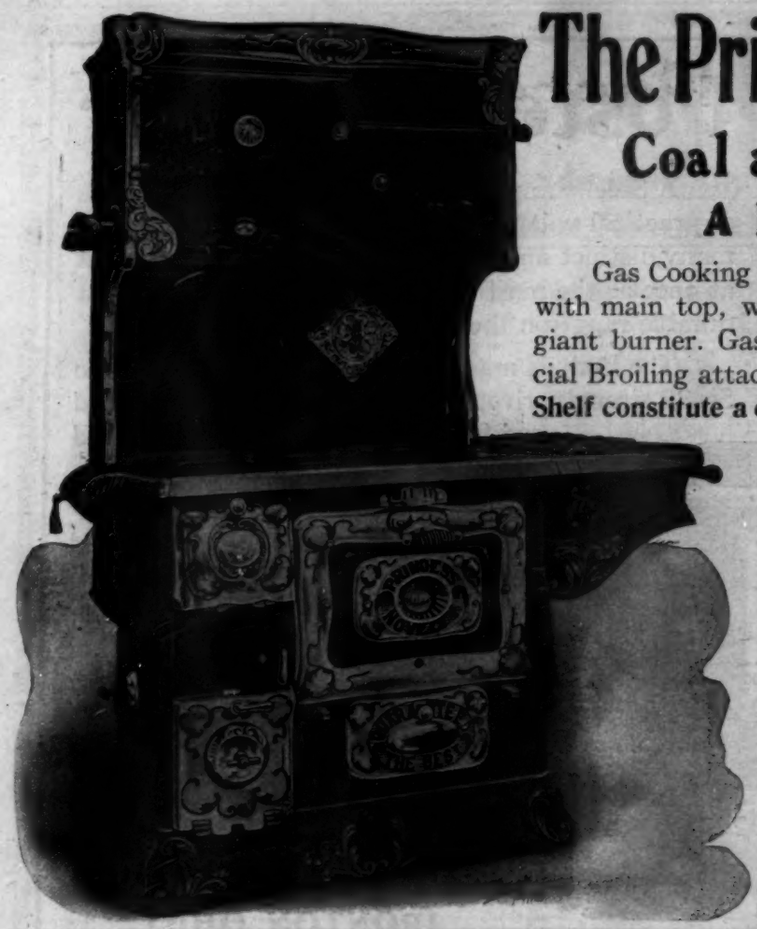
For Hotels, Restaurants, Public Institutions, Boarding Houses and Private Families. All kinds of Hotel Implements for culinary purposes. Manufactured and for sale by

The

JOHN VAN RANGE CO.

Southwest Corner 5th and Broadway

CINCINNATI - - OHIO



The Princess Novelty

Coal and Gas Range

A Real Specialty

Gas Cooking Shelf at right end of Range flush with main top, with two regular burners and one giant burner. Gas Closet with large oven and special Broiling attachment. **The Gas Closet and Gas Shelf constitute a complete, convenient, capacious and efficient Gas Range, and with these attachments the housekeeper has, in the Princess Novelty, the best coal Range ever built and a first-class highest grade Gas Range, all occupying no more space than an ordinary coal Range.** The Gas Closet and Gas Shelf are furnished for either artificial gas or natural gas. The Princess Novelty Range requires no blacking.

Abram Cox Stove Co.

American and Dauphin Streets - PHILADELPHIA
15 to 19 West Lake Street - - - CHICAGO

CHAMPION INTERCHANGEABLE RANGE

This is an INTERCHANGEABLE RANGE, not a combination range, nor a coal and gas range bolted together. It is something new.

You Can Change It from One Fuel to Another Instantly

This Range is bound to prove a big seller, it has so many superior features. For instance, if gas is being burned and it gives out or gets weak, in ten seconds, it can be changed to coal and the cooking can go on without interruption. **That's a Big Selling Point** which will appeal to every user of Ranges. There are others too, and they are going to create a big demand for this Range. Are you going to be able to meet the demand in your vicinity?

Better secure the agency at once.
Write today.

We would be pleased to send you catalog and prices.

CHAMPION STEEL RANGE CO.

3950 W. 25th St., CLEVELAND, O.

Shaded Sectional Cut

of the

"Low Down" Crown Warm Air Furnace

Designed to show the direction taken by the gases and warm air. Also the thickness and staunchness of its parts.

The March-Brownback Stove Co.

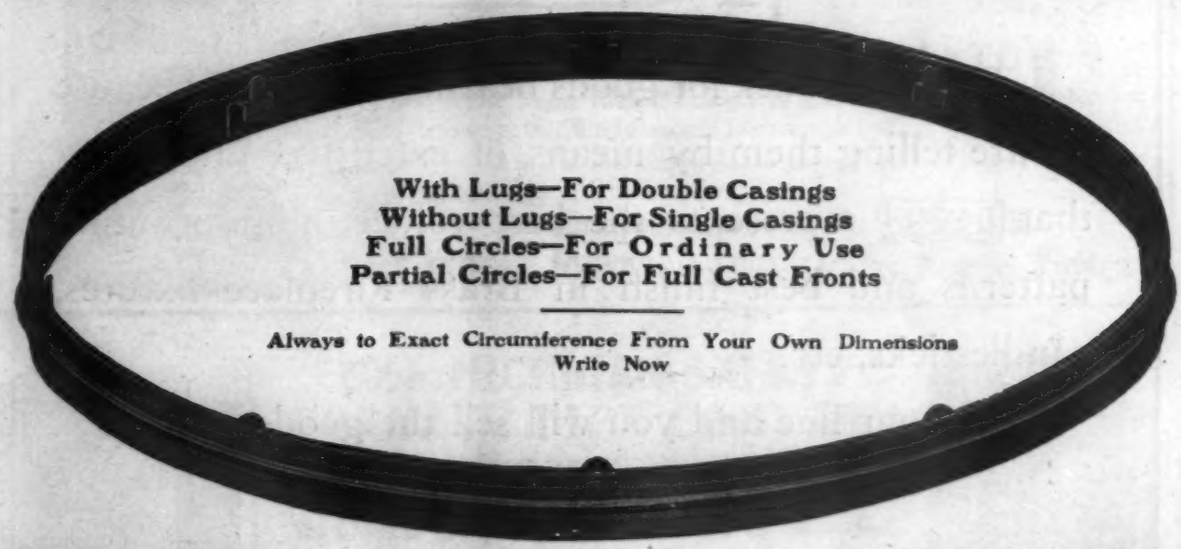
POTTSTOWN, PA.

Chicago Agency, JOHN KONTNY, 264 South Clinton Street.

STEEL CASING RINGS

Are Made to Conform to Individual Requirements in Every Respect

NEVER BREAK **CIRCLES PERFECT**



READY TO USE **INCREASE PROFITS**

THE WALWORTH RUN FOUNDRY CO., 27th St., S. W., Cleveland, O.

Makers of Fine Grey Iron Castings :: :: **Mfrs. of Semi-Steel Registers**

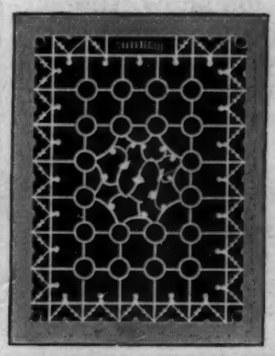
Place your orders for prompt attention with

THE OLD RELIABLE

Ohio Stove Company

PORTSMOUTH, OHIO

Satisfactory service assured under entirely new management.



REGISTERS

OUR DISCOUNT 80 and 5%

We are makers of High Grade, All Cast, Warm Air Registers, as follows:

Floor Registers
Convex Wall Registers
Convex Circular Top Registers
Circular Top Registers
Round Registers
COLD AIR FACES

FINISHES
Black Japan
White Japan
Nickel Plated or Bronzed
Electro Plated in Brass, Bronze or Copper

Why buy the semi-steel or modified Steel Register? They are only imitations. Leading Architects demand the All-Cast Registers in first-class buildings We are not Assemblers; we are Makers. Our own foundry with capacity of 200 Molders. Not in the Association. Write for Catalog.

STANDARD REGISTER CO., CLEVELAND, O. Dept. of THE STANDARD FOUNDRY & MFG. COMPANY

Rostand
TRADE MARK

People will ask for goods bearing this mark, because we are telling them by means of extensive advertising that Rostand represents the best values, most beautiful patterns and best finish in Brass Fireplace fixtures, candlesticks, etc.

Get our line and you will sell the goods.

Write for Catalog

THE ROSTAND MFG. CO.

40 RAILROAD AVE., MILFORD, CONN.

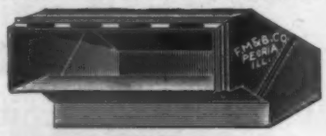
JUDGED FROM EVERY ANGLE

and compared with every competitor on the market for

SAFETY, STRENGTH, DURABILITY and SERVICE

Improved HANDY Furnace Pipe

Looms up as the BEST FURNACE PIPE MADE



HANDY Pipe approaches as near to perfection in construction as it is possible to come, all of the draw-backs of ordinary pipe being eliminated.

It has a 1¾-inch lap. One end is ⅜-inch larger than the other, and it has the longest slip of any pipe made.

These strong points mean that when once installed there is no danger of its ever coming apart.

These features also make it possible to almost throw HANDY pipe together, a point which appeals strongly to Furnace Men as it saves them TIME and MONEY in installation.

As the areas of all sizes have been enlarged a greater flow of heated air, and better results are insured which means perfect satisfaction to the furnace men, and perfect service to the house-holder.

SALES are what the trade are looking for, and HANDY Pipe has so many good selling points that SALES ARE EASY. Write for our Catalog.

We would also be pleased to send samples for your inspection. Write for them.

F. Meyer & Bro. Co., Peoria, Ill.

Floral City Capitol Furnace

Like all **Floral City Furnaces,** the CAPITOL has embodied in its construction all the best features of the up-to-date furnace. The result is a **durable, powerful** and **economical heater.** It's most important feature is the Dome or Body with the outer return flue, or

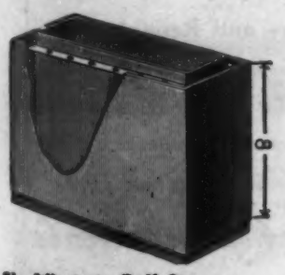
HORSE-SHOE RADIATOR

The Dome is high enough to give an extra large combustion chamber but the furnace is low enough to fit in shallow basements.

This furnace is heavily constructed and will give the most satisfactory service.

WRITE FOR CATALOG OF OUR ENTIRE LINE.

MONROE FOUNDRY & FURNACE CO., Monroe, Michigan



The MICHIGAN SAFETY FURNACE PIPE COMPANY

Corner Brooklyn and Abbott Streets,
DETROIT, MICHIGAN.

The STIFFEST and BEST Machine-made Pipe on the Market.

The only Sectional Furnace Pipe made in which the Inner Walls Form the Cross Walls.

No Wings to Pull Out. Write For Catalog. **No Cleats to Bend.**

Our Large Factory Insures Prompt Delivery.

We are not Connected with any Combination. Do not get us Confused with Other Manufacturers.

A Lot of People think
Barler Ideal Heaters

are the best oil heaters because they have tried them. They are now our exclusive agents.

Will you send us a trial order?

That's all we ask.

A. C. Barler Mfg. Co., 104-106 Lake St., Chicago

Economy, Cleanliness and Durability All Combined in the

Moncrief
Warm Air Furnace

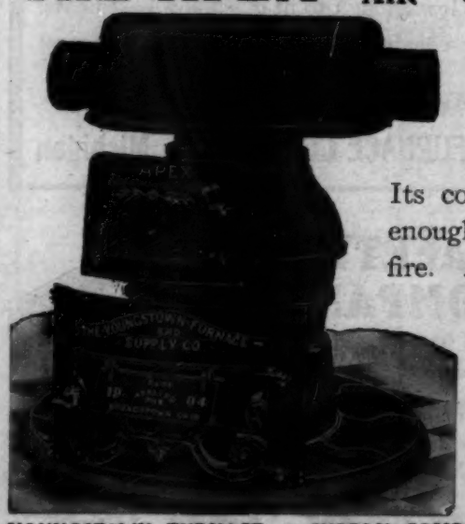
A few of the many good points of the **MONCRIEF**
- All Cast Iron
- Moncrief Duplex Grate
- Large Radiating Surface
- Top Return Flue
- Double Fire Pot
- Large Grate Surface

HENRY & SCHEIBLE CO.
825-29 Long Ave., N. W.
CLEVELAND, O.
Western Sales Agent:
J. C. KIMMEL, 3314 E. 15th Street,
KANSAS CITY, MO.

CELLULAR OVERDRAFT FIREPOT

Found Only in Our Furnaces
THE BONNOT COMPANY ∴ CANTON, OHIO

THE APEX WARM AIR FURNACE



is an extra heavy, durable furnace with **a most powerful heating capacity.** Its construction is strong enough to resist the fiercest fire. Absolutely gas tight. Will burn hard coal, soft coal or coke. Simple to operate, economical and thoroughly efficient.

Write to-day for Catalogue

YOUNGSTOWN FURNACE & SUPPLY COMPANY, Youngstown, Ohio
Chicago Office, 211-213 Lake Street
ROOD & McINTYRE, Kansas City, Mo., Southwestern Distributors

"Klymax"

Mercury Heat Economizer

For Hot Water Systems
OLD OR NEW

Increases Radiator Efficiency 25%

Sure and Reliable

A Remedy for Faulty Plants

Works Automatically

Increases Circulation

Send for Catalogue and Prices

Kellogg-Mackay-Cameron Co.

Boilers and Radiators
"K-M-C" Building
Michigan Avenue and 12th Street
CHICAGO

A-B LIQUID FIREPROOF
Stove Polish

Perfectly safe to use at any time on a Hot or Cold Stove

Polishes Easy—Quick—Black and Brilliant.
Will polish after drying. Will not burn red. Will prevent rust.

A-B will outwear any FIREPROOF POLISH made!

For First-Class Work use A-B Polishes

A-B

NON-INFLAMMABLE.

THE MOST BRILLIANT AND LASTING MADE!

MANUFACTURED BY
A-B POLISH CO., 8-14 Haddon Ave. Chicago, Ill.

HEAT LIGHT
THE
HOME
STORE
HOTEL
SCHOOL
CHURCH
OFFICE
COLLEGE
THEATRE
FACTORY
VILLAGE
INFORMATION FREE
SEND FOR IT
DETROIT HEATING AND LIGHTING CO.
DETROIT MICH

We Make It!

The BEST Air Drying Iron Enamel Made.

Try a 1-Dozen Case From Your Jobber

Nickel Plate Stove Polish Co.,
CHICAGO.

Large 10 oz. Can.

It Will Pay You

to illustrate your advertisements in your local papers. A sheet of comic advertising cuts sent on application.

These cuts are furnished with catchlines showing their application to the hardware, stove and tinners' trades.

Address

DANIEL STERN
355 Dearborn St., - CHICAGO

Write for Circulars and Terms

The Ideal Epworth Acetylene Generators
Are Ideal in construction, Ideal in light producing power, Ideal in giving out steady light, Ideal in selling qualities, Ideal in lighting Dwellings, Stores, Hotels, Churches and Towns. Acetylene light is the safest, best, cheapest, brightest, finest light in the world, when produced in the Ideal Epworth Generators.
Satisfaction Guaranteed. Agents Wanted.

IDEAL EPWORTH ACETYLENE CO., JOHNSTOWN, PA. (Successors to Epworth Gas, Light & Heating Co., Waterloo, Iowa. WATERLOO, IOWA

CUT THIS OUT

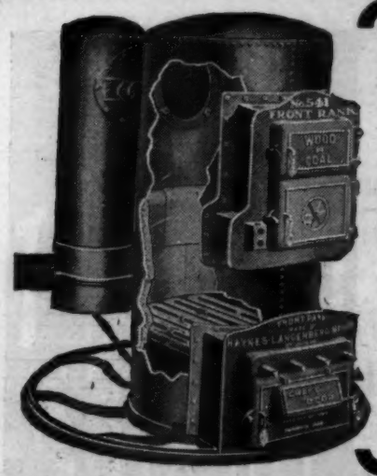
To the Publishers **The American Artisan and Hardware Record**
355 Dearborn Street, CHICAGO

Please send us THE AMERICAN ARTISAN each week for three months. At the end of that time we will remit Two Dollars for one year's subscription, or 50 cents in case we decide to discontinue.

Name_____

Address_____

Town_____ State_____



A Furnace That's Different!

You know as well as we do that almost all furnaces are alike in construction —and that your competitor can quote just as low a price as you.

With this FRONT RANK Furnace you can go after a prospective customer with a line of argument that is entirely different.

The FRONT RANK is made of heavy sheet armor plate, riveted like a boiler. It can't bulge apart, and it can't leak gas.

There are no "cup joints" in which the cement can shrivel up and allow gas to escape.

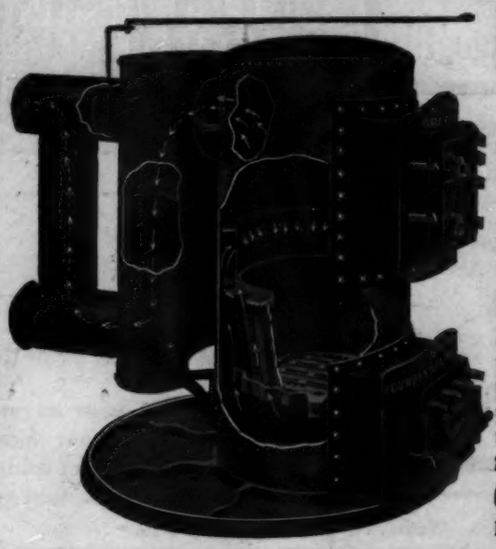
The FRONT RANK Furnace offers a mighty fine opportunity to one good dealer in each town.

Do you want our proposition?

HAYNES-LANGENBERG MFG. COMPANY

4045-57 Forest Park Blvd., ST. LOUIS

Your Furnace Business



in 1908 will be much larger than it was in 1907, if you can show your prospective customers something better than your competitor is showing. Why not sell a furnace combining all of the desirable features of furnace heating?

GREEN'S BASE HEATER

is built with a **slotted fire pot,** thoroughly consuming the smoke and gases, and **reducing the cost of fuel.** The fire pot is the most durable of any used in Steel Furnaces as the **ashes cannot accumulate behind it.** The heat penetrating through the pot and steel surrounding it, makes **every inch of this furnace heating surface from the bottom plate to the top.** A powerful heater, something good which your customer will appreciate, something better than your competitor can show. Large radiator with **long smoke travel; double feed doors;** grate bars which operate **independently of one another,** with hollow centers; deep ash pit. A furnace which **costs no more than any good furnace,** but heavy, durable, combining all of the **advantageous features of furnace heating. Write for our Catalogue.**

Green Foundry & Furnace Works

Dept. "A" DES MOINES, IOWA

Gilt Edge Badger Furnace

designed to meet the wants of those desiring a furnace for burning **Hard Coal**

With its **Large Ash Pit Doors, Solid Base Plate, Large and Roomy Ash Pit, Heavy Sectional Fire Pot and other valuable features,** all weaknesses so common to many other furnaces of like principle are overcome. This is a high-grade furnace, a perfect worker and sells at a moderate price.

Our Catalog may be had upon application
WRITE FOR IT.

Side Wall Registers

The PERFECT Registers.

SCHWAB'S SIDE WALL REGISTERS are the neatest in Design, Best in Construction and Noiseless in Operation.

Write for Illustrated Catalog.

R. J. SCHWAB & SONS CO., MILWAUKEE, WISCONSIN

A Good Warm Air Furnace

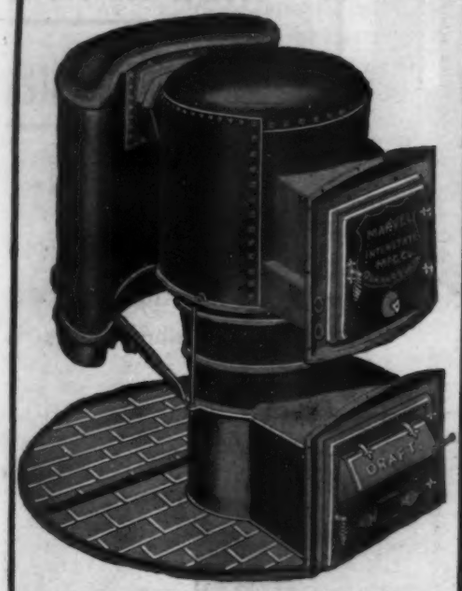
Properly installed, will heat a house more satisfactorily and more economically than hot water, steam or stoves.

The foregoing statement can be proven if you will sell BOOMER FURNACES, and get our ideas about installation.

No one has ever made any money out of light, cheap furnaces; 95% of the consumers will pay the price when value can be shown, after which, no trouble. Let your competitors have the other 5% and the trouble.

Be honest now, are you drifting into the 5% class, or are you going to handle BOOMERS? Get our attractive BOOMER proposition immediately.

The HESS-SNYDER COMPANY
Manufacturers ∴ MASSILLON, OHIO

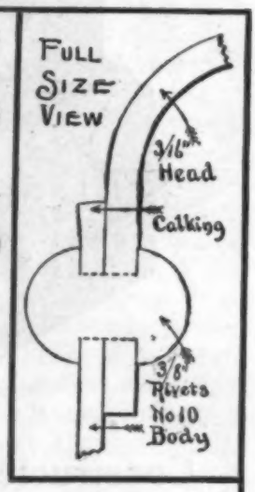


FURNACE WITH CAST FIRE POT.

800 MARVEL HEAT PRODUCERS **Series**

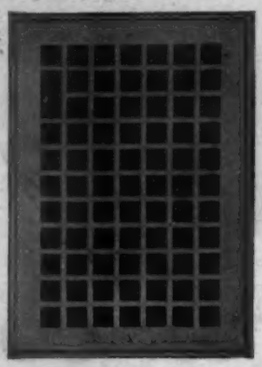
BETTER FURNACES

Large Powerful Heating Surfaces.
Two-Piece Cast Iron Pot.
Flat Dumping and Shaking Grate, or Marvel Triangular Bar Grate.
Large Feed Door. Well Made.



WRITE FOR CIRCULAR.

INTERSTATE MANUFACTURING COMPANY
OSKALOOSA, IOWA



Variety=Quality=Efficiency

168 Sizes Floor Registers in five designs Vertical Wheel.
84 Sizes Floor Registers in two designs Glide Movement.
37 Sizes Convex Registers in three designs.
11 Sizes Circular Top Registers in two designs.
14 Sizes Round Registers in two designs.
42 Sizes Mouse Proof Vent Plates.
4 Sizes Convex Base Vents.
10 Sizes Special Side Wall Registers in three designs:
6 Sizes Reversible Wafers in two designs.
3 Sizes Pedestal Registers.
43 Sizes Lock Asylum Registers in two designs.
135 Sizes Wall Frames 2" and 4".

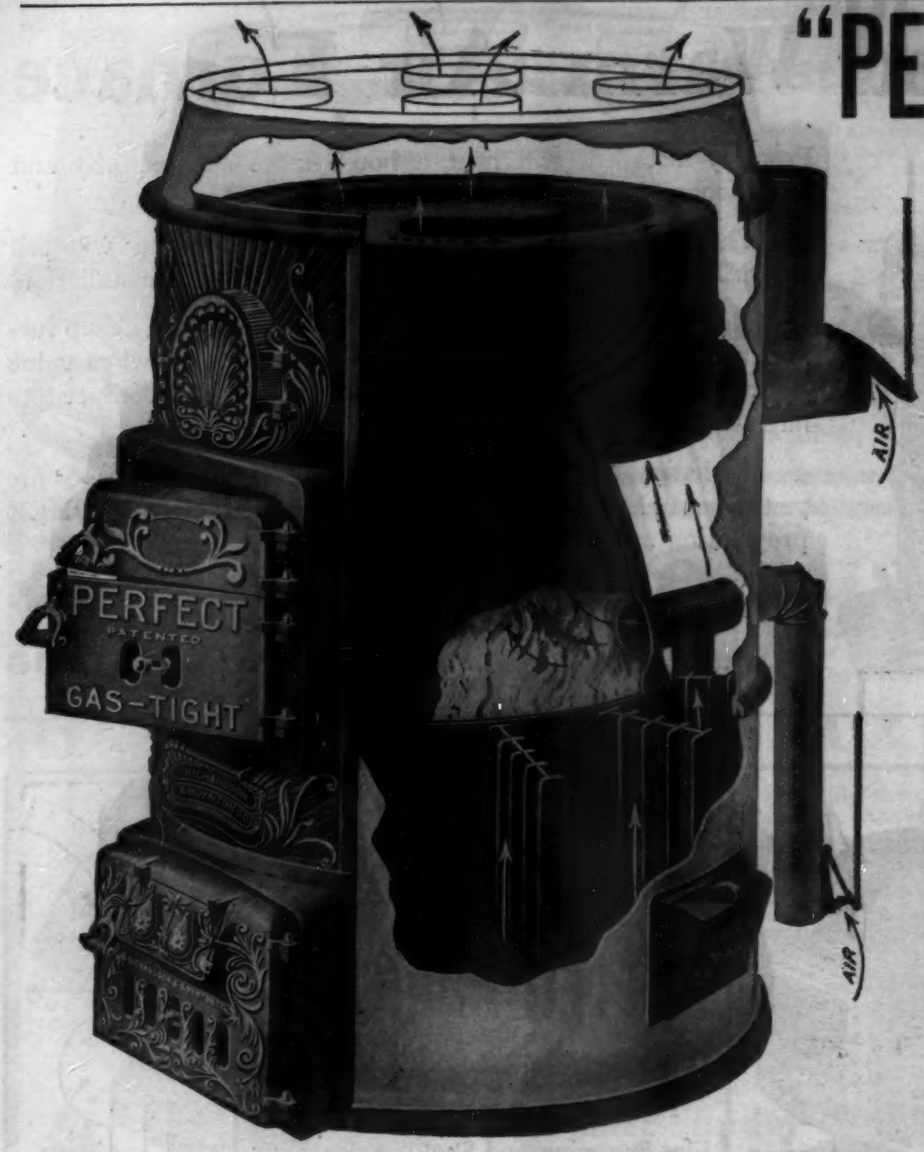
FERROSTEEL CAST—WROUGHT STEEL—MODIFIED STEEL.
Every known Special and Stock finish. Write for our Catalog and discounts.

FERROSTEEL COMPANY, Cleveland, Ohio.

"PERFECT"

(TRADE MARK)

SOFT COAL FURNACE



5 Sizes

Double Feed Door
14″ x 14″

High Ash Pit

Revolving Grates

16″ Radiator

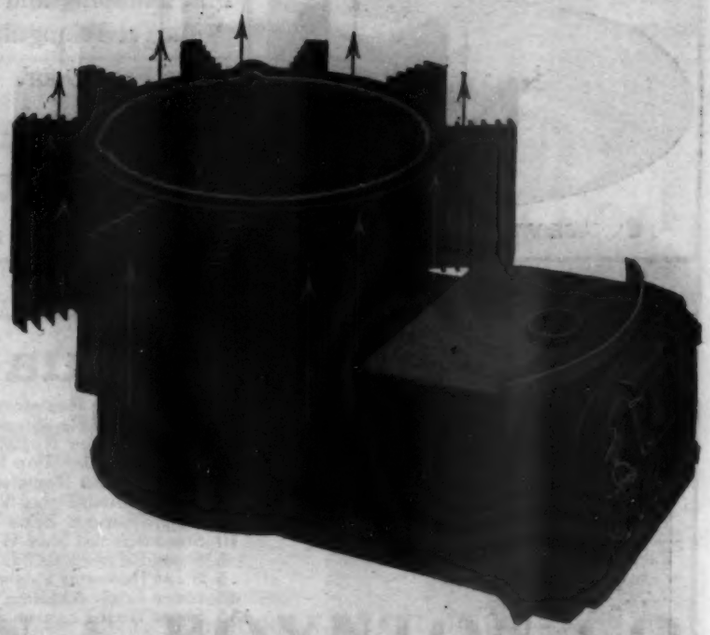
Large Flue

Straight Pot with Extension Flanges

Constructed on scientific principles, fortified by experience and common sense.

Air blast attachment.

Burns soft coal to perfection.



RICHARDSON & BOYNTON CO.

New York Boston Chicago

ESTABLISHED 1880.

THE AMERICAN ARTISAN & HARDWARE RECORD

Representative of the Stove, Tin, Hardware, Heating and Ventilating Interests.

PUBLISHED EVERY SATURDAY.

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CHICAGO, JULY 18, 1908.

AT LAST a training school for newly appointed consuls has been established at the state department at Washington, D. C., to train consular appointees in their new duties before they are assigned to posts. The course began on July 1 and will end the last of this month. The students spend about seven hours each day in attending lectures by various government officials in Washington on a variety of subjects bearing upon their official duties.

THE output of anthracite and coke pig iron during the first six months of the current calendar year aggregated 6,755,084 tons, as compared with 13,223,770 tons for the corresponding period last year. The following table gives the production of pig iron by months for the first half of the year:

	Tons		
	1908.	1907.	1906.
January	1,045,525	2,205,607	2,068,893
February	1,079,721	2,045,068	1,904,032
March	1,228,204	2,226,457	2,165,632
April	1,149,000	2,216,558	2,073,645
May	1,164,000	2,295,505	2,098,746
June	1,088,634	2,234,575	1,976,733
Total first half	6,755,084	13,223,770	12,287,681

ACCORDING to a rule recently adopted by the railroads in "Official Classification" territory, shippers of goods will be obliged in the future to give more attention to packing, or be compelled to pay an extra 20 per cent charge above the regular rate. Under the provisions of a rule now in force in "Official Classification" territory, goods "properly packed" in strawboard cases or in boxes made of similar material, pay an additional tax of 10 per cent over and above the classification rate. The new rule by providing an extra 10 per cent penalty thus increases the regular rate 20 per cent on goods which are not securely packed. The railroads say that they are obliged from time to time to pay out large sums of money on goods which have been damaged or lost in transit, and accordingly they are taking more drastic steps to force shippers to pay more attention to the question of packing.

THAT BOTH the physician who writes a prescription for denatured alcohol and the druggist who prepares the prescription and sells the medicine to the patient are liable to criminal prosecution, is held in a decision recently rendered by Commissioner of Internal Revenue Capers. The decision is the result of the action of some druggists who prescribed denatured alcohol for external medicinal purposes, not knowing that to do so is a violation of the law. The decision says:

"Completely denatured alcohol contains kerosene and crude wood alcohol, which renders it unfit even for external medication. Moreover, the second section of the law regulating the sale and manufacture of denatured alcohol provides fine and imprisonment of any person who uses denatured alcohol for manufacturing any beverage or liquid medicinal preparation, or knowingly sells any preparation made in part or wholly from such alcohol."

MEMBERS of the Business Men's League of St. Louis are making arrangements for a trade excursion into Texas and other Southwestern States to advertise St. Louis as the commercial center of the Southwest. A committee has been appointed by the president of the league, which will have charge of the excursion. The excursion will be similar to that which was held some years ago when a large party on a special train visited Arkansas, Kansas, Oklahoma and Indian Territories and Texas. More than 200 of the leading business men of St. Louis made the trip. In the present instance it is proposed to have as many as possible of the heads of the large wholesale, jobbing and manufacturing interests of St. Louis take part in the excursion, and provision for about 200 will be made. It is the intention of the league to charter a special train of Pullman coaches. The date for the trip has not yet been fixed, but it is expected it will be made either in October or November. St. Louis is after the business and it won't be happy till it gets it.

Invoicing Our Resources.

AT A MEETING held recently in Chicago by the executive committee of the National Conservation Commission, plans were adopted for taking an invoice of the natural resources of the country. It has been decided to put into tabular form, the wealth of the United States in forests, lands, waters and minerals, to prepare figures showing the rates at which the country's exhaustible resources are being consumed, and to what extent the inexhaustible resources are being wasted. The committee purposes having all this data collected and compiled by January 1, 1909. The conservation of the resources of the United States is a matter which is of vast importance to the agricultural, manufacturing and commercial interests of the country, for it is concerned with the raw materials that go into manufacture, and the sources from which they are obtained. The idea is one which should meet with

popular favor, but it is apparent that little good will be accomplished unless wise and prudent laws are enacted that will have for their object the conservation of the natural wealth of the country and the prevention of the waste thereof. A gigantic task lies before the National Conservation Commission if it really means to accomplish the purposes for which it was organized.

Our Interests in South America.

IT IS SAID that there is invested in Central and South America one billion dollars of United States capital. This amount is constantly being augmented, and when the Panama canal will have been completed, many more millions of American money will have been invested. Our trade with the Latin-American republics is increasing by leaps and bounds. The United States government through the International Bureau of American Republics, is constantly extending the invitation to American capitalists to make still larger investments in Central and South America, with the object of increasing our trade with these countries. The assistance, however, that the government has rendered American interests in South America in the way of trade protection is comparatively slight.

No action was taken by the last Congress upon the claims of five American companies who assert that they have been harassed by Venezuela. The matter of arbitration was submitted to the Venezuelan president, but he stoutly declined to take any interest in it, and nothing has been done by our government to compel this obstreperous individual to have the grievances of these American interests adjusted. Similar conditions, it is said, exist in other South American republics. These countries should be made to realize that no shrewd American investors will take a chance on spending their money where it may be at the mercy of irresponsible dictators. The United States government ought to insist upon fair treatment for American interests in foreign countries, where there may be any danger of events transpiring that may prove detrimental to trade interests. Prompt redress should be obtained where injury has been wrought. Trade interests should urge upon the government the necessity for the adoption of some policy which will protect American interests when they may be in jeopardy.

The Situation in Steel.

ACCORDING to E. H. Gary, chairman of the United States Steel Corporation, the iron and steel business in so far as it concerns the Steel Corporation, has been better during the past week or two than at any time since the depression of last fall. The tendency since the beginning of the calendar year has been toward improvement, with some fluctuations under the readjustments in prices which were made in the early part of June when the placing of orders in many lines was practically suspended. Mr. Gary attributes the inactive condition of the steel business which asserted itself in the first part of June, to the fact that those who were contemplating additional purchases were in doubt as to whether or not there would be further adjustments in prices. At present there seems to be a general feeling that bottom prices have been reached.

In a recent interview Mr. Gary had the following to say on the outlook:

"The necessities of the purchasing community are greater than ever before and ability to pay is greater than ever before. Some of the railroad companies already have taken steps to finance their requirements, and all are beginning to realize that money is plentiful and cheap and easy to obtain when first class securities are offered.

"All that is requisite to bring about satisfactory business conditions is the restoration of perfect confidence, and that appears to be near at hand. In many lines of business there is no ground for complaint. In some departments of the agricultural implement trade, for instance, the sales per day are now the greatest in the history of the country. This seems to demonstrate two things: That the farmers are the great wealth producers of the country, and have confidence in financial conditions, and that they are satisfied with crop prospects for the year. The basic conditions of the country are sound."

Our Foreign Commerce.

THE TOTAL foreign commerce of the United States for the calendar year 1907, amounted to $3,672,840,939, an increase over that of the previous year of $236,510,276. The total value of the foreign commerce of the country for the calendar year ended December 31, 1907, compared with the previous calendar year, was as follows:

Imports of merchandise	$1,423,289,693
Imports of the precious metals	189,314,432
Exports of domestic and foreign merchandise	1,923,395,267
Exports and re-exports of precious metals	136,841,547
Total foreign commerce, calendar year 1907	$3,672,840,939
Total foreign commerce, calendar year 1906	3,436,330,663
Increase in the calendar year 1907	$ 236,510,276
Increase in the calendar year 1906	429,674,701
The balance in favor of the United States:	
Exports of domestic and foreign merchandise	$1,923,395,267
Imports of foreign merchandise	1,423,289,693
In favor of the United States, calendar year 1907	$ 500,105,574
In favor of the United States, calendar year 1906	477,638,693
Increase in the calendar year 1907	$ 22,466,881

Since January 1 of this year the exports and imports have been considerably diminished, and while the former have been greater than the latter, the difference has not been at the same ratio as up to December 31. The figures, therefore, for the fiscal year will not be in the same ratio with those of the calendar year.

World's Combine in Steel.

THE most gigantic industrial combination the world has ever known—the completion of an international steel trust—has been announced. For months past, it is said, plans have been on foot to bring into harmonious combination the steel interests practically of the whole world. The international agreement will control about three-fourths of the world's output of steel. The nations included in the pact are the United States, represented by the United States Steel Corporation, which controls the American output of 23,000,000 tons; Belgium, represented by that country's larger plants, the annual output of that country being about 1,200,000 tons; Russia, represented by three great concerns of that nation, Russia's output of

steel being about 2,000,000 tons; and Germany, represented by four of the largest manufacturers of steel in that country, producing a great part of the empire's annual output of 11,000,000 tons. The world's annual production of steel in 1907 was in the neighborhood of 50,000,000 tons, and of this the mammoth new combine will control by agreement about 35,000,000 tons. The new combine, it is said, primarily will seriously threaten the British industry, which is not included in the trust, and already is seriously threatened by the foreign invasion.

RANDOM NOTES AND SKETCHES.

BY SIDNEY ARNOLD.

Hiram Percy Maxim demonstrated to managers of the Society for the Prevention of Cruelty to Animals in New York City the other day, that his noiseless gun is a success. The demonstration was made with a view to showing that shooting animals with a noiseless gun was more humane than killing them with an ax. Mr. Maxim put two city directories together against a wall, leveled the weapon at the center of the outer one, and pulled the trigger. There was a slight click; that was all. Maxim dropped the gun at his side and turned to the spectators smiling. The book had been penetrated about six inches by a soft-nosed bullet. Right on top of this comes the information that an engineer named Ponteau of Dijon, France, has invented an electric gun which, without an explosive of any kind, is capable of firing 1,200 shots a minute. When the next war breaks out we may perhaps hear that M. Ponteau's invention is a success. Who would want to fire 1,200 shots a minute, even at a flock of ducks? Shooting would then cease to be a sport. What sort of a gun would be invented if Mr. Maxim and M. Ponteau would only put their heads together? I wouldn't even dare to guess.

* * *

My old friend John Nies, a hardware dealer of Holland, Mich., recently received a letter from one who pretends to be his cousin in far away Spain. This loving "cousin" says that he has a beautiful little daughter whom he wishes John to take under his protection, while the father is busying himself about getting possession of a large fortune in a gold mine. The letter that John received is said to be couched in terms that are wonderful for what they do not say. It said in substance that the writer's father was a noted engineer working for the French government, and through his father's influence the writer claims to have secured a very lucrative position down in Panama. Shortly after John's "cousin" landed his job in the canal zone, his father died, then his mother and finally his wife, leaving the daughter to be taken care of by him. The writer says that his little daughter would prove to be an incumbrance to him in going after the gold of which he says he is willing that John should have a share—when he gets it. John says, however, that there is absolutely nothing doing as far as taking care of his "cousin's" daughter is concerned. He remembers that not many years ago a Holland woman who was foolish enough to bite at a similar proposition, was relieved of several hundred dollars of hard cash. John Nies is a good spender, like many of his trade, but he would never stand to have his home transformed into an eleemosynary institution.

* * *

The Birmingham (Ala.) Age-Herald exposes the doings of the trusts in the following lines entitled, "How We Live":

Pierced by the Pin Trust.
Chilled by the Ice Trust,
Roasted by the Coal Trust,
Soaked by the Soap Trust,
Doped by the Drug Trust,
Wrapped by the Paper Trust,
Bullied by the Beef Trust,
Lighted by the Oil Trust,
Squeezed by the Corset Trust,
Soured by the Pickle Trust.

It is gratifying, however, to realize that the tentacles of the corset trust do not encircle the male part of our population, at least, only in an indirect way, and it is a foregone conclusion that the female part will not admit that they are being squeezed too tightly by the corset octopus.

* * *

"No, I am not going to take a vacation this summer, but I've decided to quit advertising for a month," was the reply that I got from a friend of mine who conducts a store in a good-sized town in northern Illinois, when I asked him the other day if he was going to spend the month of August, as he usually does, up in the Wisconsin dells. This statement just about staggered me at first, for if there is one man that believes in advertising and who reaps great results from it, it is Bob Krause. When, however, he explained that he was only contemplating discontinuing an advertisement that he had been running in one of the papers, relative to a small farm that he had been trying to dispose of for some time, I was satisfied that he was not making a very big mistake. When Krause gives up advertising it will be because he has made enough money to retire from business.

* * *

The other day I was shown a letter which an official of a prominent financial institution in Chicago received from the president of the institution, on the occasion of the former severing his connection with the concern to organize a business similar to that in which he was engaged prior to his resignation. It is not often that I have had the pleasure of reading such a beautiful testimonial letter as this one is, hence I am going to take the liberty of putting it in print, omitting names for propriety's sake. It follows:

"On behalf of the Board of Directors of the ———, as well as myself, I desire to say that we regret extremely the resignation of Mr. ———, which step Mr. ——— has had under contemplation for the past twelve months.

"For many years Mr. ——— has been a loyal, most valuable and successful officer and worker for the welfare of this institution and its clients.

"We most heartily wish Mr. ——— every success, and are extremely desirous that our relations with Mr. ——— will continually be characterized by the same cordial cooperation and mutual good will as in the past.

"We desire our friends to join us in this spirit.

"Respectfully,

"————,

"President."

News Siftings

The Gadsden Stove & Foundry Co. of Gadsden, Ala., after having had their plant shut down for several months resumed operations on July 6.

The Lawrence Gas Stove Co., of Buffalo, N. Y., will erect a three-story factory to replace that part of its plant which was recently destroyed by fire.

John Knoell of Philadelphia has been appointed receiver of the estate of Henry Swartz, individually, and trading as the Quakertown Stove Co. of Philadelphia.

The Erie Stove & Mfg. Co., of Erie, Pa., contemplates the erection of a two-story factory. The building will be of brick construction with concrete flooring.

The Robt. Powell Stove Co. of Birmingham, Ala., has been incorporated with a capital stock of $50,000. Robt. J. Powell and W. J. Powell are president and secretary, respectively, of the company.

The Ireland & Matthews Mfg. Co. of Detroit, Mich., have recently constructed a new five-story addition to their factory. They are working on the installation of a new 35-ton two-step press which will be used for drawing tubes and large shells.

The July issue of "Graphite," issued by the Joseph Dixon Crucible Co., Jersey City, N. J., contains, as usual, a number of interesting articles and spicy paragraphs. Among the articles that may be mentioned are: "Preventing Corrosion of Steam Machinery," by W. H. Wakeman; "Charging Costs in Shop Practice," by L. H. Snyder, M. E., and "A Constructing Engineer's Trick." "Graphite" seems to improve with each issue.

The biennial convention of the International Union of Stove Mounters and Steel Range Workers was held in Chicago on July 14, at 275 La Salle street. Representatives of 100 locals of the association were present, and D. W. Ottinger, of Detroit, international president, conducted the meeting. Reports of officers showed that the organization is free from labor disputes and that the situation between the stove manufacturers and the mounters and workers is as amicable as it has ever been for years past.

The Reid Stove Works of Quincy, Ill., are distributing a circular which describes and illustrates their Eureka air heater, which, the manufacturers claim, will burn everything that is combustible. The fire-pot of this stove is composed of 16 sections, each section having 78 square inches of direct radiating surface, making a total of 1,232 square inches of direct radiation. The fire-pot also has 510 square inches of indirect radiation, and is so constructed that it leaves a V-shaped slot on the inside that allows the air to pass up the inside of the fire-pot and come out in the fuel, thus consuming the fuel on the outer side against the fire-pot, where the heat is wanted.

The Monitor Stove & Range Co., of Cincinnati, O., have made arrangements with Morley Bros., Saginaw, Mich.; Great Western Stove & Repair Co., Minneapolis, Minn.; Paxton & Gallagher Co., Omaha, Neb., and the Morley-Murphy Hardware Co., of Green Bay, Wis., to carry a complete stock on hand of Monitor stoves and ranges so as to facilitate the quick delivery of their orders, as they realize that it is to the advantage of the trade and also to themselves to be able to make prompt delivery of all orders. The firms mentioned which will handle the complete line of the Monitor Stove & Range Co. are first-class and representative jobbing houses, and they may be expected to accomplish great results with Monitor products.

Hemp & Co., 2d and Chouteau Ave., St. Louis, Mo., manufacturers of the well-known Russia-finish patent-lock stove-pope, in a card which they are sending to the trade, state that they are the only manufacturers of goods in their line who do not sell to dealers. A Hemp heater, they say, cannot be bought except through a jobber. The company's improved "Dufft" attachment, which is furnished on all their stoves, makes it absolutely impossible, it is said, for the legs to come loose accidentally, yet the legs can be easily and quickly taken off and put on. For upwards of half a century Hemp & Co. have been making sheet metal goods and hardware specialties for the stove trade. When writing Hemp & Co. for further information concerning their products kindly mention THE AMERICAN ARTISAN.

Gatchel & Manning, Philadelphia, designers, illustrators and engravers, are thoroughly equipped to handle high-class catalogue and other advertising requirements in the line of designs, illustrations and engravings for printing in one or more colors on a type printing press. Gatchel & Manning cuts (especially halftones) are noted for their excellence. The firm has a most complete equipment for the handling of difficult mechanical retouching and guarantees satisfactory service and results in this as well as in other directions. The advertising matter in the form of booklets and circulars which the firm is sending out contains a number of excellent specimens in the way of designs and illustrations. The general get-up of these booklets ought to be sufficient to convince the most skeptical that Gatchel & Manning are specialists in high-grade illustrating, designing and engraving. When writing them for their literature or when in quest of prices kindly mention THE AMERICAN ARTISAN.

THE "ACME" OVEN THERMOMETER.

The "Acme" oven thermometer, manufactured by the Evans Stamping & Plating Co., Taunton, Mass., is said to be in use by a large number of stove manufacturers throughout the country, and the manufacturers say that they have proven themselves to be all that their name signifies—the height of perfection. "Acme" oven thermometers are said to be accurate in registration. They are simple in construction, and the company guarantees every one that it manufactures. The company's style A X has a three-inch face and flat back, and is adapted for ranges and stoves with drop doors and where there is no oven tin used on the inside of the door. Style A X X X X is the same as the A X style, with the exception that it has a shell on the back to extend farther into the oven, so that where a door tin is used on the inside of the door, the thermometer will get the benefit of the heat from the oven. Style C X differs from style A X in that

the face is not quite as large, measuring 2⅝ inches. The company's style G "Acme" oven thermometer is so constructed as to give the hand or pointer a large range. Its face is the same size as style C X. The Evans Stamping & Plating Co. furnishes these thermometers with the trade name of the purchaser on the dial at no extra expense where a reasonable number are bought during the year. When writing for catalogue, kindly mention THE AMERICAN ARTISAN.

BAKER'S RADIATOR.

Baker's Radiator, manufactured by the Snyder & Baker Stove Works, Belleville, Ill., is the company's latest creation in square heaters. It is said to possess every modern feature to make it a strictly first-class

Baker's Radiator.

stove. The manufacturers say that it is absolutely air-tight and that it is a wonder for all-round service. It is provided with a one-piece combustion chamber, check damper in top, shaking, and draw center grate, and hot air attachments for heating upper rooms. Besides being a very efficient heater, Baker's Radiator is a stove of an unusually attractive design, the nickel, it is said, being the very latest design in ornamentation. The nickel parts include the urn base, top, three deflector panels, two side columns, door panel, name plate, dampers, turn-keys and base. This stove, like various other coal heating stoves manufactured by the Snyder & Baker Stove Works, is made of the highest grade of pig iron and sheet steel. The company says that its line of soft coal heaters is the most complete ever offered to the trade. A catalogue may be had upon application. When writing for it kindly mention THE AMERICAN ARTISAN.

THE SHERIDAN STOVE MFG. CO.

The Sheridan Stove Manufacturing Company, Quincy, Ill., are having a very successful season and are introducing for this season's trade several new and desirable additions to their line of stoves and ranges. One of their recent additions is the "Star" steel range, one of the neatest pieces of goods in a moderate-priced steel range yet placed upon the market. The simplicity of the Mission design makes the stove very attractive, and they have placed orders for a great many of these ranges. They also have ready for this season's trade a new high-grade cast range, which they call the "Sheridan," the equestrian figure of General Sheridan being one of the chief ornamentations of this new cast range. The duplex grate is so arranged that it can be removed without taking out any bolts. The "Sheridan" range has a large top, wide flues and an honest oven, the 18 x 18 and 20 x 20 being full size. One of the new features about this cast range is that it has a drop oven door similar to those on steel ranges. There is no doubt that among those needing a high-class range the "Sheridan" will meet with favor.

The company also has for this season a new cheap, low-priced cast cook stove, to burn both coal and wood, which they call the "Signal." This stove is neat in appearance, has a nickel top band and is of a very attractive pattern. As the 18-inch oven size weighs but 315 pounds, this stove can be made at a price which will make it a desirable addition to many lines.

The Sheridan Stove Manufacturing Company has recently enlarged its steel range department and constructed a fire-proof stone structure, 35 x 40, two stories high, and the arrangement for storing sheet steel and the supplies for steel ranges are very convenient. Their steel range department now occupies a building 100 x 40 feet, part of it being two stories high and part four stories. Under its present management the Sheridan Stove Manufacturing Company has forged ahead and is now one of the most prosperous concerns in Quincy.

IRON PAINTING.

There are many causes of the rusting of iron. It may be produced by atmospheric action alone, but in a majority of cases galvanism plays a large part in the destruction of the metal. Long experience has shown how rapidly iron nails employed in fastening sheets of lead and copper upon roofs are destroyed, the other, the electro-negative metal, remaining comparatively unaffected.

The electrolytic, or exciting fluid, which by acting on the iron and not on the other metal or by acting more upon the former than upon the latter tends to eat out the former.

The Hardware Record.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly. You will find these on pages 36 to 41 inclusive.

The firm of Failing, Haines & McCalman of Portland, Ore., will in future be known as the Failing-McCalman Co., W. O. Haines having retired. E. M. Underwood, a director of the concern, has been appointed treasurer. The other officers remain as before.

William Geach, senior member of the firm of W. M. Geach & Son of Granville, O., died on July 2d, at the advanced age of seventy-eight years. Mr. Geach had been in the hardware business in Granville for more than twenty-five years and was one of the best known men of that town.

The fifth annual picnic of the Iowa Retail Hardware Association which will be held at Cedar Lake, Ia., on July 31, promises to be the most enjoyable event that the association has ever held. The various committees are busy perfecting the arrangements for the carrying out of a very interesting and entertaining program.

It is reported that the Moore Bros. Lightning Rod Co., of Graham, Mo., will remove its factory to South St. Joseph, Mo. Eli Moore, the president of the company, says that their business has outgrown their present facilities and that it will be necessary to seek larger quarters. The company now employs about 50 men.

Mrs. Samuel Disston, and family of the late Samuel Disston, former secretary and general manager of Henry Disston & Sons, Inc., Philadelphia, who died on June 27, have sent out to sympathizing friends, a mourning card upon which is engraved the following: "Mrs. Samuel Disston and family desire to acknowledge their deep appreciation of your kind sympathy."

The Dover Mfg. Co., Canal Dover, O., makers of sad irons, have made a number of additions and improvements to their establishment, which will about double its capacity. A new plant of 300 horsepower capacity has been added. The company reports that its business has been steadily increasing since the first of the year, hence the necessity for the enlargement of the plant.

The Louisville Axe & Tool Co. of Highland Park, Louisville, Ky., which is now operating the plant formerly owned by the American Tool Co., says that business has been very good with them of late. W. J. Sager, well-known in the axe industry, is general manager of the company, the officers of which are: President, J. A. Stewart; vice-presidents, M. T. Christopher and B. F. Fitch; secretary-treasurer, J. B. Augustus.

A meeting of the directors, officers and members of the advisory committee of the Connecticut Hardware Association was held at the New Hills Homestead, at West Haven, Conn., on July 9. An invitation extended by A. R. Jones, on behalf of the Danbury Fair Association, to have an outing in Danbury on Oct. 7, was entertained, and it was voted that the association accept the invitation to go to Danbury on that date. It was voted to accept the invitation of the Waterbury members to hold the next annual meeting in that city. The president, secretary, A. R. Jones and Chas. Hull, were appointed a committee on arrangements for the Danbury outing.

The annual meeting of the Oklahoma Hardware & Implement Dealers' Association was held at Oklahoma City, Okla., on July 14, 15 and 16. The address of welcome was delivered by President Boyd of the Oklahoma City local. Among those who delivered addresses were President Murdock of Ralston; C. P. Hamilton, of Mangun; H. S. Ferbrache, of Stigler; Geo. Larimore, of Oklahoma City, and M. C. Hale, of Tulsa.

The "Matchless" floor hinges, jamb hinges and hardware specialties of the Lawson Mfg. Co., 40 Dearborn street, Chicago, have become very popular among jobbers and retailers who handle reliable goods. The Lawson Mfg. Co. guarantees all their goods to perform efficient service, and to stand up under the most exacting conditions. "Matchless" hinges enjoy a popularity to which their good qualities entitle them. When writing the company for literature descriptive of their line, kindly mention THE AMERICAN ARTISAN.

The July issue of "Co-operation and Expansion," the monthly publication of the Heath & Milligan Mfg. Co., Chicago, is the first number the company has issued since their resumption of business following the suspension of operations attributed by them to a series of misfortunes commencing with the fire which destroyed their entire manufacturing plant two years ago, and terminating with the financial stringency of 1907. The Heath & Milligan Mfg. Co. announces that they are now prepared to execute promptly all orders for paint. Ernest W. Heath is general manager of the reorganized company and Arthur M. Heath is general superintendent.

"Gosset Hinges" form the subject of a very interesting little booklet issued by F. D. Kees Mfg. Co., Beatrice, Neb. These hinges are designed to be put on window screens to which other fittings may be attached. They consist of two separate pieces, one part being attached to the screen, and the other to the window casing, outside. Two of the hinges (four pieces) constitute a set or pair. When once they are screwed in place it is not necessary to remove them. When a screen and a storm sash are used on the same window, Gosset hinges make them interchangeable, the set of parts attached to the building answering for both. A storm window hung with Gosset hinges swings open at the bottom for ventilation, and a suitable fastener locks it securely whether open or closed.

PRODUCTS OF THE U. T. HUNGERFORD BRASS & COPPER CO.

The "Star" brand copper nails, manufactured by the U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York, are known throughout the country as reliable goods. Users of copper nails frequently find it to their advantage to demand the "Star" brand, than which there are probably no more popular nails on the market. The U. T. Hungerford Brass & Copper Co. carries a complete line of cut copper nails in all sizes, a complete stock of copper wire nails in all sizes, for slating, shingling, bolt work, etc., yellow metal nails

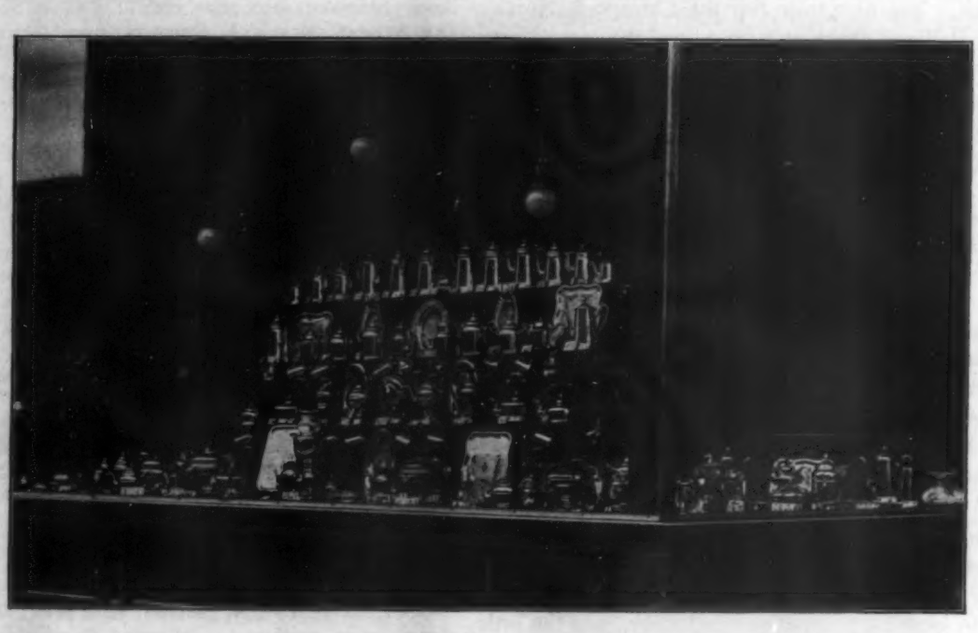
and oval and flat-head copper tacks. The company's "Star" brand hard sawed brass bar and hard drawn copper bar are products which have achieved a wide degree of popularity. A stock sheet showing a full assortment of these goods that are carried in stock by the company will be sent on request. When writing for it kindly mention THE AMERICAN ARTISAN.

AN ATTRACTIVE WINDOW DISPLAY.

A window display that was highly commended by the judges in THE AMERICAN ARTISAN'S window display competition was made by T. H. Loyhed & Son, Faribault, Minn., who submitted the photograph, which we reproduce herewith, under the nom-de-plume, "Duncan."

The front plate of glass in the window was 13½ feet in length. The window was 5½ feet deep, and there was plate glass in the rear for the purpose of keeping out dust. Electric lamps are shown within the enclosure. The front of the lower floor was faced with copper as also was the space below the windows. The floor of the window and the pyramid were covered with black crepe paper, the left end of the enclosure being covered with cardinal red felt.

The goods used in the display were of nickel-plated copper, and included percolators, five-o'-clock teas, tea and coffee pots, chafing dishes, trays, crumb trays, etc. The whole made a very attractive display, and was much commented on by passers-by.



Honorably Mentioned by the Judges in THE AMERICAN ARTISAN'S Window Display Competition—Submitted by T. H. Loyhed & Son, Faribault, Minn.

THE DENNING WIRE AND FENCE COMPANY

The "Peerless" woven wire field and hog fence, manufactured by the Denning Wire & Fence Company, Cedar Rapids, Ia., is made from the best galvanized steel wire and is of sufficient strength to turn all kinds of stock on a farm. It is a fence, the makers say, that will last a lifetime if properly put up and taken care of. The Denning fence has come into wide use during the past few years because of the quality of the material used and because of its substantial construction. The company's Regular fence is made with top and bottom cables of No. 13 galvanized wire, all intermediate cables being made from No. 14 galvanized wire. Their No. 10 cable, 49-inch fence will stand a pulling strain, it is said, of over 12,000 pounds. The stays are of No. 13 galvanized wire and spaced six inches apart, which are close enough to prevent hogs from spreading the cables, even if the fence is not stretched very tightly. This fence has considerable flexibility and is guaranteed to stretch over hills and through low places without buckling. The company's Special fence is made with all No. 14 wire, cables and stays, to meet the demand for a lighter fence. It is noted for its durability.

The Denning Wire & Fence Company's heavy single-strand fence is made with No. 9 top and bottom bars, No. 11 intermediate bars and stays and No. 12 best galvanized steel wire. The bars are connected together with short pieces of stay wires tied in a peculiar shaped knot which binds them tightly and puts a slight offset in the horizontal strands, making it practically impossible to slip them on the strand wires. The company's Jumbo poultry, rabbit and field fence will turn anything, the makers say, from a small chicken or rabbit to a horse or bull. The top and bottom bars are No. 9, the intermediate bars No. 12, and the stays No. 14, best galvanized steel wire. The "U. S." ratchet, another specialty of the Denning Wire & Fence Company is said to be without an equal as a midway or intermediate wire tightener. The best testimony to the practical usefulness of this ratchet is the fact that the company is selling a larger number of them than ever before. Other products of the Denning Wire & Fence Company include "Acme" poultry netting, lawn fence, all steel farm gates, etc. Descriptive literature upon application. When writing for it kindly mention THE AMERICAN ARTISAN.

Chicago Retail Hardwaremen's Picnic.

The thirteenth annual picnic of the Chicago Retail Hardware Association was held at Northwestern Park on Wednesday, July 15, and was probably the most successful ever held in the history of the association. The day was an ideal one for a picnic, and the weather could not have been better had it been made to order. The arrangements were carried out in a manner that elicited much favorable comment, for not a single hitch occurred to mar the pleasure of the event. The members of the association turned out in large numbers, and many of them closed their stores for the day. It is estimated that about 1,000 persons attended the picnic. The first train left the Chicago & Northwestern Railway depot at 9:30 a. m., the second one following an hour later. "Pop" (W. H.) Bennett, whose presence at any social or other event held by the Chicago Retail Hardware Association, is indispensable to the success thereof, was one of the earliest to arrive at the depot to greet the members of the association, their families and friends.

Hardly had the first train been unloaded at the park when the younger picnickers started in to enjoy themselves. Reichert's band accompanied the party on the first train, and dancing was the first form of mirth to be indulged in by the younger element. After dinner had been partaken of, and promptly at 1:30 o'clock, the children of the party were formed into line and marched around the grounds carrying flags and brandishing whips that had been furnished them.

The Baseball Games.

Much interest was manifested in the baseball games that were played, and which were the opening numbers on the afternoon program. The first game was played by boys 15 years of age and under, and the little fellows seemed to enjoy themselves immensely.

The second game was an open one, between salesmen and clerks. The salesmen's team was composed of Messrs. Cutler, Lymer, Hoffman, J. Ruhling, McVoy, Collipp, Abramson, Leonard and Lemoi. The clerks were Messrs. Askew, Paul, Schwegn, Burns, Freudenberg, Kimball, Harvey, Jones and Halzgeben. After a hard-fought contest the salesmen won by a score of 4 to 3. The umpires were Messrs. J. Talbert and J. Spies.

The game between the members of the association proved to be a rather one-sided one, the dealers north of Madison Street defeating the dealers south of Madison Street by a score of 19 to 2. The north division team was composed of Fred Ruhling, A. M. Brauer, H. E. Gnadt, Geo. Bartholdy, Fred Smith, M. Engelhardt, A. Krueger, C. Dalbke and W. Triesselman. The opposing team—the dealers south of Madison Street—were A. J. Engelhardt, J. H. Bowler, W. Hoffman, S. Koehler, F. A. Schmidt, F. H. Schanze, E. L. Sommers, John Schuberth and Jesse Powers. Mr. T. J. Bowler performed the duties of official score-keeper in a manner satisfactory to all. The score cards were furnished by THE AMERICAN ARTISAN.

The Race Program.

The racing contests began at 4:30 o'clock, and were carried through very satisfactorily. The race course was roped off, and there were plenty of contestants for each event. The list of prizes awarded, and the names of the donors, appeared in THE AMERICAN ARTISAN of July 11. Following is a list of those who were awarded prizes in the various contests:

The Prize Winners.

Married Ladies' Race (wives of members)—First prize, cash $3, donated by THE AMERICAN ARTISAN, Mrs. Mee; second, prize, cash $2, donated by THE AMERICAN ARTISAN, Mrs. Annie Joczwske; third prize, cash $1, donated by THE AMERICAN ARTISAN, Mrs. E. L. Sommers; fourth prize, Mrs. T. E. Connor.

Single Ladies' Race—First prize, Anna Tanneberg; second prize, Anna Bush; third prize, Anna Geiger; fourth prize, Vera Benton.

Girls' Race (under twelve years)—First prize, Alice Gallandt; second prize, Genevieve Connor; third prize, Bertha Huedepohl; fourth prize, Sarah Dalrymple; fifth prize, Elsie Tosch.

Married Men's Race (members)—First prize, Conrad Dalbke; second prize, Fred Ruhling; third prize, C. A. Niesel; fourth prize, H. G. Schoessling; fifth prize, Geo. Bartholdy; sixth prize, J. N. Bartholdy; seventh prize, P. A. Lemoi; eighth prize, F. F. Carlspedt; ninth prize, H. Pesorowsky; tenth prize, W. F. Siewert.

Single Men's Race—First prize, H. Kimball; second prize, L. E. Askew; third prize, H. C. Nebel; fourth prize, W. Stauber; fifth prize, J. H. Darrow.

Boys' Race (under twelve years)—First prize, C. Thoma; second prize, Frank Repsold; third prize, Frank Mee; fourth prize, Julian Mee; fifth prize, Frank Thoma.

Salesmen's Race—First prize, H. Kimball; second prize, L. E. Askew; third prize, R. H. Meyers.

Coupon Drawing Prizes—First prize, Mrs. Thos. R. Beebe; second prize, A. Johnson; third prize, Fred Hoffman; fourth prize, unclaimed; fifth prize, Chas. Blaa; sixth prize, Mrs. H. A. Nettbaum; seventh prize, H. Ackermann; eighth prize, unclaimed; ninth prize, Earl Ewert; tenth prize, J. Mee; eleventh prize, J. Mee; twelfth prize, unclaimed; thirteenth prize, Susan Kelsey; fourteenth prize, Louis Stauber; fifteenth prize, Jas. Graves, Chicago Stove Works; sixteenth prize, Alfred Grosch; seventeenth prize, Fred Ruhling; eighteenth prize, Mrs. L. Bittner; nineteenth prize, unclaimed; twentieth prize, unclaimed; twenty-first prize, J. W. Tegtmeyer; twenty-second prize, H. M. Libe. Charlotte Schanze, the little eight-year-old daughter of Fred H. Schanze, picked the winning coupons out of the box, blindfolded. As a reward for her services she was presented with a wash tub.

Target Shooting Contest (members only)—First prize, J. N. Bartholdy; second prize, C. A. Niesel; third prize, A. M. Brauer; fourth prize, Jesse Powers; fifth prize, M. Schweighofer; sixth prize, Geo. Engelhardt; seventh prize, Geo. Bartholdy.

Target Shooting Contest (open)—First prize, Hermann Peter; second prize, Frank Schrader; third prize, L. Lane; fourth prize, D. G. Geiger; fifth prize, A. A. Ainsworth; sixth prize, Geo. Collipp.

Too much praise cannot be given the various committees for their united efforts towards making the picnic the unparalleled success which it was. "Pop" Bennett, Martin, George and A. J. Engelhardt and Fred Ruhling were among those who rendered very efficient service. E. L. Sommers and John Hora were untiring in their efforts in promoting the success of

the target-shooting contests. As for "Pop" Bennett, he was more indispensable than ever. No hardware picnic is complete without "Pop's" benign presence. The decisions of the judges in the various contests gave universal satisfaction and no friction was manifested among the contestants. Dancing was indulged in throughout the day and up to 8 o'clock in the evening, when the last contingent of picnickers boarded the second train for home, all having been pleased with the day's outing.

TWO NEW "KEEN KUTTER" CORKSCREWS.

The Simmons Hardware Company of St. Louis have recently put on the market two new "Keen Kutter" corkscrews, which are meeting with great success. A good corkscrew should have a stout screw and a firm handle, and should pull a cork easily without breaking it. Consequently the simpler the construction of a corkscrew the more satisfactorily does it work.

No. 8 Corkscrew.

The No. 8 "Keen Kutter" corkscrew has a convex twist. It is forged from the highest quality of crucible steel, carefully tempered and nickel plated. It has a varnished maplewood handle upon which a firm grip can be had. The No. 23 "Keen Kutter" corkscrew is made of the same material and with the same care as the No. 8. It is provided with a seal lifter and wire breaker. Those who have used these corkscrews say that they are capable of extracting the most tightly set cork with ease and facility. When writing for further information concerning these corkscrews to the Simmons Hardware Company, kindly mention THE AMERICAN ARTISAN.

No. 23. Corkscrew.

CATALOGUES FOR COUNTRY HARDWARE RETAILERS.

To THE AMERICAN ARTISAN:

I understand that certain country dealers in the hardware trade have adopted a policy of issuing catalogues, though with what success I have been unable to determine. It has occurred to me that under certain conditions the issuing of catalogues by retailers in the trade might be a paying proposition. I am engaged in the hardware business myself, and naturally would be pleased to learn through the columns of THE AMERICAN ARTISAN to what extent and with what success retail catalogues are being issued in country towns. Any information that you are in a position to impart on this subject, I will greatly appreciate.

Yours very truly,

A Hardwareman.

Wenona, Ill., July 8, 1908.

The subject to which our correspondent refers in the above letter is one which for some time past has been creating not a little interest among the country trade in all parts of the United States. THE AMERICAN ARTISAN will be pleased to receive and publish the views of those who may have adopted the policy of issuing catalogues or of those who are in a position to give definite information relative to the success or otherwise of the catalogue system. Any dealer who may have a copy of his catalogue to spare would confer a favor upon THE AMERICAN ARTISAN by forwarding it, together with any information upon the subject that might be of interest to the retail trade at large.

THE DOVER ONE-PIECE STOVE PIPE ELBOW.

The Dover one-piece stove-pipe elbow, made by the Reeves Mfg. Co., Canal Dover, O., is made from one piece of metal, and has no seams or corrugations standing out to collect dust or soot. The surface, inside and out, is smooth, permitting of a high polish. It is guaranteed to fit and to give absolute satisfaction. This elbow is strongly constructed and presents a neat appearance. Its ends are long and it is true to size. Dover elbows are shipped in box crates, insuring undamaged goods at destination. Descriptive literature will be sent upon request. When writing the Reeves Mfg. Co., for it, kindly mention THE AMERICAN ARTISAN.

Dover One-Piece Elbow.

THE STURGES MILK CAN.

The Sturges milk can, manufactured by the Sturges & Burn Mfg. Co., 233-237 S. Green street, Chicago, is made of a good quality of steel plate, and is guaranteed to stand the hard knocks which draymen, bag-

gagemen and milk-buyers are in the habit of giving to milk cans. The inside seams of the Sturges milk can are smoothly soldered, and there is said to be no crack or crevice in which the milk may lodge and turn sour. This can is provided with a seamless neck, a sanitary cover and a solid one-piece round handle. Every can is guaranteed to give lasting satisfaction and service. They are tinned and retinned in the company's factory and are made by new and up-to-date machinery. The Sturges milk can is easily cleaned and is proving to be a great seller. Sturges & Burn Mfg. Company will send to those interested their Book No. 75, which tells all about the construction and good qualities of this can. When writing for it kindly mention THE AMERICAN ARTISAN.

RETAIL HARDWARE DOINGS.

NEW FIRMS AND INCORPORATIONS.

Hartford, Conn.—The Park Street Hardware & Loan Co. has been incorporated with a capital stock of $3,000.

Duncannon, Pa.—Gensemer & Co. have engaged in the hardware business.

Pittsburg, Pa.—Fort Pitt Hardware Co. has been incorporated with a capital stock of $25,000.

Anson, O.—Anson Hardware & Implement Co. incorporated with a capital stock of $10,000.

Sumner, Mich.—J. P. Warren has opened a hardware store.

Headrick, Okla.—Stoffer Mercantile Co. has opened a branch hardware store.

Spirit Lake, Idaho.—McKinney & Van Allen have engaged in the hardware business.

Frederick, Okla.—Massie-Kelley Hardware Co. has been incorporated with a capital stock of $6,000.

Milvid, Tex.—Miller Vidor Saw Mill Co. has opened a hardware store.

Lincoln, Mo.—A. N. Berry has engaged in the hardware business.

Clildress, Tex.—R. H. Morris Hardware Co. has been incorporated with a capital stock of $50,000.

BUSINESS CHANGES.

Oakland, Ill.—Myron Bigelow purchased the Meikle hardware stock.

Monroe, La.—W. C. Youngblood has purchased an interest in the Monroe Hardware Co.

Randall, Kas.—White & Temple have purchased the Vance hardware business, and will continue it under the name of Randall Hardware Co.

Oxfordville, Wis.—G. T. Hanson has purchased the hardware store of M. O. Rime.

Creston, Wash.—Gross & Vincent have purchased the business of Labor & Wordy.

Waitsburg, Wash.—J. P. Strickler has purchased the hardware business of Kruchek Bros.

Colby, Kas.—G. R. Werner has purchased the hardware business of F. S. Lovitt.

Calamus, Ia.—M. E. Peterson & Co. has been succeeded by Peterson Bros.

Sugar City, Colo.—Harris & Wedick have purchased the business of the Richard Hardware Co.

San Diego, Cal.—Reed & Wyman Co. have been succeeded by the Pierce-Field Hardware Co.

Leola, S. D.—C. W. Hawes & Co. have purchased the hardware stock of the Leola Exchange.

Corning, Ia.—E. O. Goodlaxson has purchased the Okey hardware store.

Kansas, Ill.—C. W. Phipps and L. S. Phipps have purchased the Neal hardware stock. The new firm will be known as Phipps & Phipps.

New Providence, Ia.—Curtis Miller and Paul Sholtz have purchased the hardware store here.

Springdale, Ark.—W. T. Graham has purchased a half interest in the Caudle Hardware Company.

Rutland, Vt.—Billings & Brousseau, hardware dealers, have dissolved partnership, Seymour Billings buying the interest owned by Albert Brousseau.

Lakeville, Minn.—Frank Ellenbecker has purchased the hardware business of P. P. Samuels.

MISCELLANEOUS.

Port Orchard, Wash.—F. Midelburg is erecting a new hardware store.

Clovis, N. M.—The Barry Hardware Co. is erecting a new fireproof building to replace the one recently destroyed by fire.

Dryden, Mich.—W. E. King and Hillard Easton have purchased a hardware store.

Ashtabula, O.—Dudley's hardware store was burglarized.

Kalkaska, Mich.—The hardware store of George E. Smith was damaged by fire.

Castleton, Kas.—The hardware store of Halloran & O'Leary was destroyed by fire.

Angola, Ind.—Williamson's hardware store was damaged by fire.

OBITUARY.

John O. Perkins.

John O. Perkins, who for some years past had been in charge of the trade journal and other general advertising of Butler Brothers, Chicago, died at his residence, 3223 Dover St., Ravenswood, on the afternoon of Tuesday, July 14. Mr. Perkins had been ill for about ten weeks past, but not until two weeks ago was it thought that his sickness was of a serious character. The death of Mr. Perkins at the untimely age of 41 years brings to an end a career of brilliant promise and removes from the firm of Butler Brothers a man of recognized ability and of sterling worth. Mr. Perkins was greatly beloved by his many friends for his genial disposition and innate good qualities. As an advertising man he was widely known in Chicago, and his good judgment and sound common sense was duly appreciated by the firm for whose interests he worked to his full capacity. His death will be deeply regretted by his numerous friends and acquaintances. Mr. Perkins is survived by a widow and two sons, fifteen and eighteen years old, respectively. His funeral was held on the afternoon of Thursday, July 16.

William M. F. Niedringhaus.

William M. F. Niedringhaus, director of the National Enameling & Stamping Co., and founder Granite City, Ill., died on July 14, at his residence, 5105 Lindell avenue, St. Louis, at the age of 73 years Mr. Niedringhaus had been ill of dropsy for several weeks past, and his death was not unexpected. The deceased, who came to America from Germany in 1850, was one of the first manufacturers of tin plate on a large scale in the United States, the mills of the National Enameling & Stamping Co. at Granite City giving employment to thousands of men. Mr. Niedringhaus founded the St. Louis Stamping Co., which has since been absorbed by the National company. He built the Niedringhaus Memorial Church at Seventh and Cass avenue, St. Louis, and the Niedringhaus Church at Granite City. He also was the founder of the chair of theology at the Central Western College at Warrenton, Mo.

Advertising Department

Our readers are invited to send in copies of their advertisements in the local press for criticism. All communications should be addressed to the "Advertising Department" of THE AMERICAN ARTISAN.

The advertisement of The Boynton Furnace Company, shown herewith, is one upon which it would not be a very easy matter to improve. The amount of space given to the ad has been used to the best

possible advantage, without crowding, and there is sufficient white space to permit of the advertisement being read without difficulty. The matter is well laid out and the display feature is a strong one. Such an ad as this is sure to attract attention, for the text is written in simple English and the merits of the Boynton furnace are concisely set forth. It appeared recently in a Paterson (N. J.) paper and occupied 7¾ inches of space, with a width of one column.

* * *

The advertisement of the D. J. Marleau Co., Toledo, O., which we reproduce herewith in reduced form, is a fairly good example of specialty advertising. Pittsburg wire fencing, wire fabric for concrete reinforcement and ornamental fence and gates are the commodities to which attention is directed in the advertisement. The text is very well written, though there is rather more of it than desirable. When an advertisement is crowded with matter, its appearance usually is spoiled, and its efficacy thereby diminished. The ad, however, possesses a number of good characteristics. The type selection and display features are well taken care of, and the important matter of stating prices

at which the goods are offered, has not been disregarded. The advertisement appeared in the *Toledo* (Ohio) *Daily Blade* of April 17, 1908, and occupied 11 inches of space, three columns wide.

* * *

'Tis poor advertising that won't help business, and it's poor business that can't be helped by advertising. Also, it's a poor rule that won't work both ways.—*American Blacksmith.*

* * *

Advertising is the pier that will sustain the bridge of business.—*Bagology.*

Heating and Ventilating

RETURN AIR OR INSIDE CIRCULATION.

BY W. J. HEALD.

The following paper was read by Mr. W. J. Heald of the Lenox Furnace Co. of Marshalltown, Iowa, at a meeting of the Midland Club held in Chicago on July 1.

Your president has asked me to open a discussion on the subject of return air or inside circulation. I shall assume that we all agree that circulation of air within the rooms to be heated is absolutely necessary to obtain results and that cold air is heavier than hot air. I shall ask you to pardon me if I talk to you as though you were amateurs or inexperienced men for the reason that I have been accustomed as a rule, to talking to customers who were not conversant with this plan.

There are two ways of obtaining circulation of air within the rooms to be heated. One is by the use of cold air from the outside to supply the furnace, used in connection with a ventilating flue of sufficient size to carry the cold air on the floor of the building out as fast as the hot air comes into it. Another way is to use the return system and provide for cold air outlets at the floor of every room in the house to be heated and conduct this cold fresh air back to the furnace for its supply. The difficulty in getting good circulation with the first plan in connection with outside cold air to the furnace, is that the ventilating flue of sufficient size is not furnished and the different rooms are not connected to it by pipes of proper size to get the circulation. Please bear in mind that we assume that all agree that it is absolutely necessary to have circulation of air to heat properly. A cold air from the outside to a furnace is only one part of a ventilating system, and it is necessary to have a proper connection to a ventilating flue of ample size to get the circulation which gives the desired results.

My observation has been that too often in heating residence buildings those who use outside air to supply the furnace have ignored the principle of circulation of air and have not provided for it by using proper connections to a ventilating flue and by so doing, try to heat without circulation and fail. A ventilating flue to be effective and to be depended on for circulation under all conditions of atmosphere, must be heated. It will not do to depend on outside walls, cold attics, and cold ventilating flues for circulation. Hence I claim that it is not enough to supply cold air from outside to a hot-air furnace, but provision must be made for ventilation in connection with it. You will undoubtedly agree with me that this is not practical in common residences and that the owners will not furnish the ventilating flue of proper size, and instead of putting the furnace in with an outside cold air and no ventilation, why not put in the return system and take no chance on properly heating the house and at the same time furnish ventilation far in excess of that furnished by any other method of heating except the ventilating system of which I have spoken.

We admit that the ventilating system of which the cold air from the outside is only one part is not practical for small houses. Now why not do the next best thing and put in a job that is practical and install our cheap furnace jobs so that they will heat, no matter from which direction the wind comes, so that the dirt from your neighbor's back yard or the street will not be constantly sucked in through an outside cold air and sent up into the house through the hot-air pipes? This can be accomplished by using the return system. It is not enough, however, to have only one cold air face in the hall, but you should have the cold air outlets so located that all rooms on the first floor will have easy access to them and so that the cold air on the floors will not have to be drawn across the floors of two or more rooms before they reach the outlets.

We seldom use less than three cold air outlets on the first floor for an ordinary eight or ten-room house, using the largest one in the reception hall on account of the cold air from the second floor naturally settling into the hall. This plan of installation will give good results provided the combined area of the three or more cold-air faces, as the case may be, are equal to the combined area of all the hot-air pipes. The best place to locate the cold air outlets is on the same side of the room that the hot air is located and may be side by side if preferred. It is just as important to have the cold-air pipes short as it is to have the hot-air pipes short, and just as important that they slope downward as that the hot-air pipes slope upward. A heating plant installed in this manner will not be effected by the wind, it will make no difference from which way the wind blows, all rooms will heat equally well. It is true that it costs more to install a furnace this way, but it is worth more after it is done, and will be a credit to the business in general when it is done, and in my judgment nothing would strike the hot water and steam man such a knock-out blow as for all the leading manufacturers of hot-air furnaces to insist that their furnaces be installed in this manner. We can put them out of business in five years, as far as residence heating is concerned, if we will just insist upon having our furnaces installed properly.

A man will not pay from $400.00 to $600.00 for heating a house if he can get it done for from $200.00 to $300.00. It is not necessary to do it for from $90.00 to $125.00 to secure the business. If a man has ever lived in a flat building where the furnace was installed as the average competition work is installed, no amount of talk, even though by a hot-air man and pretty windy at that, can convince him that any hot-air furnace is a suitable thing to be put into a house in which a white man lives. And, gentlemen, I believe that we are driving another nail into our coffin every time we sell our goods to be installed for less money than it can be done properly. Our company never gets much of this so-salled real estate or competition work, and we do not want it for two reasons. One is there is not enough profit in it, and the other is that we would be afraid of its hurting our reputation.

I firmly believe that if this association or all the leading manufacturers of hot-air furnaces would settle on what good installation consists of, and insist on having their salesmen and their agents follow the same, that we can go to the architects of the country and demand of them that their plans call for certain things when hot-air furnaces are specified and the small dealer or manufacturer would be forced to install his furnaces better, and the demands for hot-air furnaces would be very much increased in a short time and eventually would displace hot water and steam for common residence work, for hot-air furnace heat is the best known method when properly installed. I do not claim that a house cannot be well heated by using outside cold air in connection with a ventilating flue, but I do claim that it cannot be done in a satisfactory manner without proper connections to a heated ventilating flue for the reason that the circulation will not be good. In my opinion it is not practical for the reasons given above. I believe that the practical common sense thing to do is to use the return system and eliminate many of the objections now raised to hot-air heating. I would be glad to join in a united effort of some kind to establish furnace heating on a basis that it should be. One manufacturer cannot do much alone, and there cannot be much accomplished if we pull in opposite directions. It is concentrated effort that is needed.

Suppose every one of our salesmen would carry a copy of resolutions passed and signed by all the leading manufacturers, that furnace work must be done so and so, would it not have its weight, and would it not be hard for the outsider to get the work to be put in, in an inferior way, even though his price were less? My theory is that the worse curse to the hot-air furnace business of today is that of the general idea that it is cheaper and that in the face of this we are fools enough to see who can sell for the least money. If the word could be circulated broadcast that hot-air furnace heating has become a science and when scientifically done, costs more money than formerly, but is the best known method of heating a modern home, and then eliminate the cheap work, it would be a great boom for the business.

TWENTIETH CENTURY FURNACE.

The Twentieth Century furnace manufactured by the Twentieth Century Heating and Ventilating Co., Akron, O., burns soft coal, lignite or wood equally well. The lower sections are of heavy durable cast-iron, and the large corrugated dome is a heavy plate closely riveted, the dome section being self-cleaning. The heat produced by this furnace is all utilized by radiation from the shell, the dome and radiating pipes. The manufacturers say that there is nothing about the Twentieth Century furnace to get out of order. It is said to be gas-tight and dust-proof, has heavy castings, large feed door, large ash-pit and combustion chamber, high quick heating radiator, an unusual amount of radiating surface and an excellent front-damper regulating arrangement. The makers say that there is no better soft-coal furnace on the market to-day than the Twentieth Century, for besides being a reliable and efficient heater it is simple and durable. The company will be pleased to mail catalogues upon request. When writing them kindly mention THE AMERICAN ARTISAN.

FURNACES OF WALTER S. RAIT & CO.

The furnaces of Walter S. Rait & Co., 211-213 Lake street, Chicago, are handsome in design, low in elevation, simple and durable in construction and are powerful and efficient heaters. The radiator of one of their most popular lines is constructed of 12-gauge steel, with heavy cast-iron top and bottom plates made with cup joints, bolted both on the inner and outer circles, and is so arranged that the combustion must travel the full circumference before entering the smoke pipe. The ash-pit is made of heavy boiler iron with cast top and bottom plates, which are made with cup joints and packed with asbestos, making it absolutely tight. The best triangular grate bars are used, the same being interchangeable and so arranged that each bar may be replaced separately by removing a split pin. Walter S. Rait & Co.'s heavy steel furnace with large double feed-door, is said to be a furnace of unusual power and of quick heating capacity. It is made of what is said to be the best quality of very heavy boiler plates with front and back radiator, and is reputed to be absolutely gas, smoke and dust-tight. Good descriptive literature on application. When writing for it kindly mention THE AMERICAN ARTISAN.

THE BOYNTON FURNACE CO'S FURNACES.

The gas-tight steel-dome "Crusader" and "Admiral" furnaces, manufactured by The Boynton Furnace Co., Chicago and New York, are made with the company's patent square pot and square base. By reason of their substantial construction and general efficiency the base and firepot of Boynton furnaces have created much interest among the trade. The Boynton soft-coal "Crusader" furnace is one of the most popular furnaces to-day on the market, and the company says that there is a greater demand than ever for them. Economy in fuel consumption is but one of the important features which are characteristic of Boynton furnaces. A catalogue illustating and describing the complete line of The Boynton Furnace Co. may be had on application. When writing for it kindly mention THE AMERICAN ARTISAN.

IDEAL NOVELTY FURNACES.

The Abram Cox Stove Co., American and Dauphin streets, Philadelphia, is sending out a folder in which illustrations and descriptions are given of the company's celebrated Ideal Novelty furnaces. On the first page is shown the No. 72 Ideal Novelty, claimed to be the largest portable warm air furnace in the world. It weighs 3,900 pounds, less the casings, has a casing diameter of 72 inches, a fire-pot measuring 40 inches in diameter, and a grate measuring 38 inches. The illustration of this furnace shows five men standing in the space between the inner radiator and the outer radiator, two men in the fire-pot and two men in the ash-pit. On page three of the folder is shown two No. 40 Ideal Novelty furnaces, cased together at the top in battery form, so as to provide a common reservoir for the hot air rising from the heating surfaces of the two furnaces. In heating large residences and other buildings it is frequently desirable to use two furnaces cased together in this manner. The Ideal Novelty all cast-iron furnace is also described in the folder. This furnace is low in stature but has a large area of effective heating surface. It is said to be absolutely and permanently gas-tight and dust-proof, all the joints are asbestos gasket joints, and the surfaces are machined so that there is good contact, over a large surface, of the gasket with the metal. The Ideal Novelty all cast-iron furnace is self-cleaning, and is reputed to be an extremely powerful heat-producer and a real economizer of fuel. When writing the Abram Cox Stove Co. kindly mention THE AMERICAN ARTISAN.

PARAGRAPHS.

The semi-annual meeting of the American Society of Heating & Ventilating Engineers, will be held at Niagara Falls, on July 24 and 25, and is expected to be largely attended. The Illinois chapter of the society has made arrangements to attend the meeting by steamer, about 20 members leaving Chicago on July 18, and arriving at Buffalo on July 21. The papers to be read at the meeting are said to be of an exceptionally high order, and are expected to rival in excellence any that have been presented at previous meetings of the society. The meeting will be held at the Cataract Hotel.

The Wall Street Journal, commenting on the growth of advertising has this to say: "They might as well abandon the telegraph and go back to the mail; they might as well abandon the ticker and go back to the method of carrying quotations by hand from office to office; they might as well abandon the telephone and return to the practice of personal interviews; they might as well abandon the typewriter and go back to the method of writing all their own letters, as to refuse to take advantage of the tremendous opportunities of advertising."

Tinshop

THAT SWEATING ROOF PROBLEM.

In a recent issue of THE AMERICAN ARTISAN, Diuguid & Co. of Lynchburg, Va., submitted the following sweating roof problem:

"We have a tin roof over a storeroom occupied as a furniture store. The house is 40 feet wide, 132 feet deep and three stories high. It is well ventilated. For some reason, which we are unable to understand,

Fig. 1.—Register in Panel of Cornice.

the roof sweats very badly. At times it drips off into the house as if it were raining. We have put three large ventilators in the roof, but these do not help matters. There is no fire in the building except in a small office on the street floor. We desire through the columns of THE AMERICAN ARTISAN to be informed by some of its many readers, as to what is the cause of the sweating of the roof and to learn how it may be remedied."

In Diuguid & Co.'s description of the building and roof, they failed to state whether the ceiling of the top floor is put on the roof joist, or whether it is a hanging ceiling with a space between the roof and the ceiling. I take it for granted that there is a space between the roof and ceiling, and will say that I do not

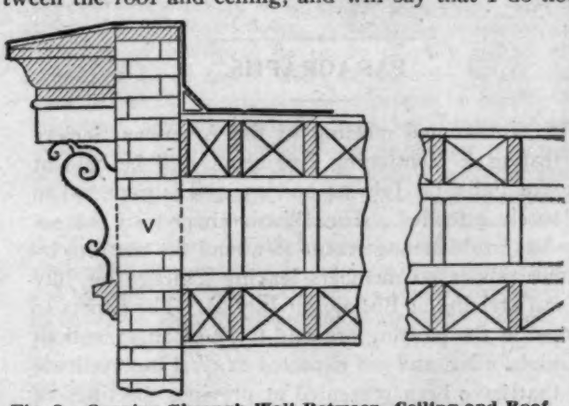


Fig. 2.—Opening Through Wall Between Ceiling and Roof.

believe a ventilator or any number of ventilators will give satisfactory results when placed on the roof, if there is no intake below the roof to allow for a circulation of air.

I show two cuts. Fig. 1 shows a register placed in the panel of the cornice. Two registers should be used, one at each end of the building, their combined capacity being equal to the total capacity of the ventilators in the roof. Fig. 2 shows the opening through the wall into the space between the ceiling and the roof. If this change is made I do not believe you will be troubled by the roof sweating.

New York City. G. L. GRAY.
June 20, 1908.

BROOKLYN MASTER SHEET METAL WORKERS.

The regular meeting of the Brooklyn local branch of the National Association of Master Sheet Metal Workers was held on the evening of July 16 at 54 Hancock street, corner Bedford avenue, Brooklyn, N. Y.

President W. H. Ostheimer and Secretary C. C. Moquin have sent out the following timely letter to members of the local association:

"In two months from now business will begin to improve again, and it will be wise for us to pause and think whether business has been a success with us or not during the past year, and if it has not, why not. Many of us have lost money in business since spring, and we may continue to do so until fall by the looks of things. Consider then whether or not you should get a better price for your work. Consider whether or not you are going to let three-fourths of your customers bulldoze you into doing work at their price, because the other fellow up the street is willing to do it for what they say.

"Remember that the successful tinsmith in business must have the nerve of a salesman and the ability of a merchant to make money. How many jobs have we done in the past year which at first appeared to show a profit but in reality showed a loss? For goodness sake stop all this cut-throat business. Get a price for your work when the opportunity arrives. Cut out that demon "Jealousy," that makes us all the cat's-paw of our customers, be they large or small, simply because we figure just low enough to prevent the other fellow from getting the job. How much more prosperous we could all be if we would all pull together for a profit?

"Now let us think it over, and I just want to tell you one thing. The world makes way for force and persistency and if you will make up your mind from now on that you are going to do work for a profit, you are going to get that profit. Let the other fellow do work for nothing if he wants to, but just make up your mind you are going to come out the big end of the horn.

"There is something in the atmosphere of a man of big ideas, the fellow who is game, who believes he is in the game of life to succeed. There is something in his very appearance that makes for success. Don't let us be a bunch of mollycoddles, afraid to fight for prices, but have a practical estimate of what you believe you ought to be worth as a boss tinker, a business man, and then stand out for business prices."

THE MEIER CELLAR DRAIN TRAP.

F. W. Meier, Upper Sandusky, O., has put on the market a useful device which is known as the Meier Cellar Drain Trap, designed to overcome the difficulties frequently encountered in drains. The outside diameter of the trap is such that it can be inserted into a section of the cellar drain, a flange on one end of the trap holding it in position in one of the joints between two sections of the drain pipe, whether of cast-iron or tile. The trap besides being provided with an outer section with a flange on it, has an inner copper cone, one end having a strainer and the other end tapering. The loose portion of the trap consists of a cup made flaring to fit over the cone and suspended by means of a wire connected with the outer sleeve of the trap. On this wire the cup can move backward and forward by means of a roller attached to the cup so as to balance it and allow it to move freely. When matter is being discharged through the waste system the cup is pushed away from the mouth of the cone and the waste can discharge freely. On the contrary when there may be a back pressure the cup is driven on

the cone of the trap and it is thus impossible for anything to pass it to cause trouble. The Meier Cellar Drain Trap, in short, prevents articles of any character or extraneous matter from getting into the drain so as to clog it. When writing for further information concerning this drain trap kindly mention THE AMERICAN ARTISAN.

TANNER & COMPANY'S GOODS.

Tanner & Co., "The Quick Shippers," Indianapolis, Ind., say that they carry the largest and best assorted stock of roofing plates in the United States, including 20 different grades of both steel and charcoal iron. The prices at which their goods are sold, they say, are as low in proportion as the piles of their goods are high. They carry almost 100 different gauges and sizes in cold rolled steel, Nos. 14 to 28, inclusive; Wood's refined iron, Nos. 14 to 27, inclusive; Apollo galvanized steel, Nos. 16 to 30, inclusive; Griffith's galvanized charcoal iron, Nos. 24 to 26, inclusive; Wellsville polished steel, 28x60 and 24x101; Wood's planished iron (A) and (B), 28x60, and genuine Russia iron, Nos. 10 and 11, 28x56. When writing Tanner & Co. kindly mention THE AMERICAN ARTISAN.

"GINGER" CIRCULARS FOR SHEET METAL WORKERS.

The following is Circular No. 4 of a series of ten circulars that W. H. Barnard of Norfolk, Va., secretary of the National Association of Master Sheet Metal Workers of the United States, has sent out to local associations:

"The National Association of Master Sheet Metal Workers deprecates the use of gravel slag and other composition roofs. Many disastrous fires have occurred in many cities of our country, because of the inflammable character of these roofs. A fire-resisting roof should bear a less rate of insurance than this kind. Since we have a National Association of Master Sheet Metal Workers a powerful influence is being used to open the eyes of the people. We are not asleep. What are you doing to arouse the people in your own community? Have you no influence? Get busy!"

SPECIALTIES OF FRIEDLEY-VOSHARDT CO.

Friedley-Voshardt Co., 194-204 Mather street, Chicago, manufacturers of art metal ceilings and side walls, sheet metal statuary, architectural ornaments, etc., are the Western agents for products of The Wm. Connors Paint Mfg. Co., Troy, N. Y., among which may be mentioned "American Seal" brand elastic oil roofing cement, asbestos furnace cement, oil stove putty, and roofing paint. The "American Seal" brand roofers' elastic oil cement is said to possess the valuable qualities of a good roofing cement, namely, adhesiveness and elasticity. It is guaranteed to adhere firmly to slate or metal, and not to crack or crumble. This cement is especially recommended for repairing leaks around chimneys, dormer windows, skylights, scuttles, fire walls, and any place that requires fixing on the roof, either slate, tin or shingles. The products of The Wm. Connors Paint Mfg. Co. are celebrated for their high-grade quality, and their asbestos furnace cement, stove putty and roofing paint, are guaranteed to give satisfaction under the most exacting conditions. When writing Friedley-Voshardt Co., who as stated above, are the Western agents for these products, kindly mention THE AMERICAN ARTISAN.

EUREKA FURNACES OF THE TURNER BRASS WORKS.

The accompanying illustration represents the Turner Eureka furnace for gasoline, manufactured by the Turner Brass Works, 26 Park avenue, Sycamore, Ill. The burner, which is made of special bronze, is so constructed that the greatest heat may be obtained. The No. 6 Turner Eureka furnace will melt a kettle of lead and heat a pair of coppers at the same time, without removing either. My means of a sliding device a noiseless flame is produced, suitable for indoor and bench work. The hood in both the No. 6 and the No. 14 styles is detachable, and the burner is swiveled, making it a convenient hand-torch. By another change of adjustment a bright illuminating flame is produced. The tank is made of heavy galvanized iron, equipped with an improved automatic brass pump. The Turner Eureka furnace is a first-class tool for plumbers, tinners, roofers and other mechanics. The capacities of the No. 6 and No. 14 are one gallon, and three quarts, respectively, the consumption of gasoline amounting to ¼ pint per hour in each case. The Turner Brass Works recommends the use of 74-degree gasoline with these furnaces. Catalogue and descriptive literature may be had upon application. When writing kindly mention THE AMERICAN ARTISAN.

Turner Eureka Furnace.

SCHOEDINGER METAL CEILINGS.

F. O. Schoedinger, 146-148 N. Third street, Columbus, O., manufactures a line of metal ceilings the patterns of which are among the most artistic on the market. Schoedinger work is re-squared before being sent out, making it easily applied and insuring an accurate fitting. The nailing surface of Schoedinger metal lies flat on the wood surface. Where a flat board surface exists no furring is required, and notwithstanding the depth of Schoedinger panels, no double furring is said to be necessary. Schoedinger metal is painted and dried before it is stamped, the paint used being a special preparation which is guaranteed to be a good metal preserver. It is forced into the pores of the metal with high pressure rollers, the surface being so well and evenly covered that but one additional coat of paint is said to be necessary after the metal is erected. Other products of F. O. Schoedinger include cornices, windows, skylights, lath, eaves trough, ridge roll, conductor, and tinners'

and roofers' supplies. When writing for catalogue, kindly mention THE AMERICAN ARTISAN.

A VALUABLE TESTIMONIAL.

TO THE AMERICAN ARTISAN:

I have been a constant reader of THE AMERICAN ARTISAN for the past 25 years, and the many good things that I have gleaned from its pages have gone a long way toward making myself, what I call, a good workman. I have a scrap-book made up of excerpts from THE AMERICAN ARTISAN that would be hard to beat by any book on tin or sheet metal work. Whenever I get a puzzler all I have to do is to look over my scrap-book and I am sure to find something that will help me out.

I don't think there is anything better for beginners to read than THE AMERICAN ARTISAN.

Yours respectfully,
GEO. E. AINSWORTH.

112 N. 1st Ave., Canton, Ill., July 8, 1908.

NOTES AND QUERIES.

FIRELESS COOKERS.

From A. F. Ramharter, Clear Lake, S. D.

Kindly give me the names and addresses of some fireless cooker manufacturers.

Ans.—Caloric Fireless Cook Stove Co., Grand Rapids, Mich.; Reynolds Refrigerator Co., Omaha, Neb.; Rock Island Mfg. Co., Rock Island, Ill.; Kahn Fireless Cooker Co., 35 Congress St., Boston, Mass.; Hallock Fireless Cooker Co., Grand Rapids, Mich.

PORTABLE BAKE OVENS.

From Dan Sullivan, Green River, Wyo.

Where can I get portable bake ovens?

Ans.—E. Van Noorden & Co., Boston, Mass.; Hubbard Portable Oven Co., 180 Beldon Ave., Chicago; John Van Range Co., Cincinnati, O.; Born Steel Range Co., Cleveland, O.

PLUMBERS' SUPPLIES.

From F. W. Meier, Upper Sandusky, O.

Please refer me to some manufacturers of plumbers' supplies.

Ans.—Jas. B. Clow & Sons, Chicago; Bailey-Farrell Mfg. Co., Pittsburg, Pa.; Standard Sanitary Mfg. Co., Pittsburg, Pa.; The Lunkenheimer Co., Cincinnati, O.; Crane-Hawley Co., Cincinnati, O.

VENTILATING SCREENS.

From James Maloney, 1107 Escanaba Ave., Escanaba, Mich.

Where can I get wire ventilating screens with angle iron frames?

Ans.—F. P. Smith Wire & Iron Works, 100 Lake street, Chicago.

COILED WIRE SASH CORD.

From Albert Degner, Norfolk, Neb.

Where can I get coiled copper wire sash cord?

Ans.—John A. Roebling's Sons Co., 171 Lake street, Chicago.

ADJUSTABLE METAL COW STANCHION.

From E. C. Saecker, Lake Mills, Wis.

Please refer me to a manufacturer of adjustable metal cow stanchions.

Ans.—James Boyle, Salem, O.

ITEMS.

The second annual outing of the Louisville (Ky.) Master Sheet Metal Workers' Association, was held at Senning's Park on July 7. There was a large attendance and everybody pledged himself to renewed efforts for the coming year. The Louisville local is a live one in every respect, and when it goes after a thing it usually gets it.

The Masons of Crawfordsville, Indiana, are putting up a very handsome new hall, Geo. T. Griffith, of Crawfordsville, Indiana, being the architect. The contract for roofing has been awarded to Frank Davis. One hundred squares of Scott's extra coated hammered open hearth roofing plates, manufactured by Follansbee Bros. Co., Pittsburg, Pennsylvania, will be needed to cover the roof.

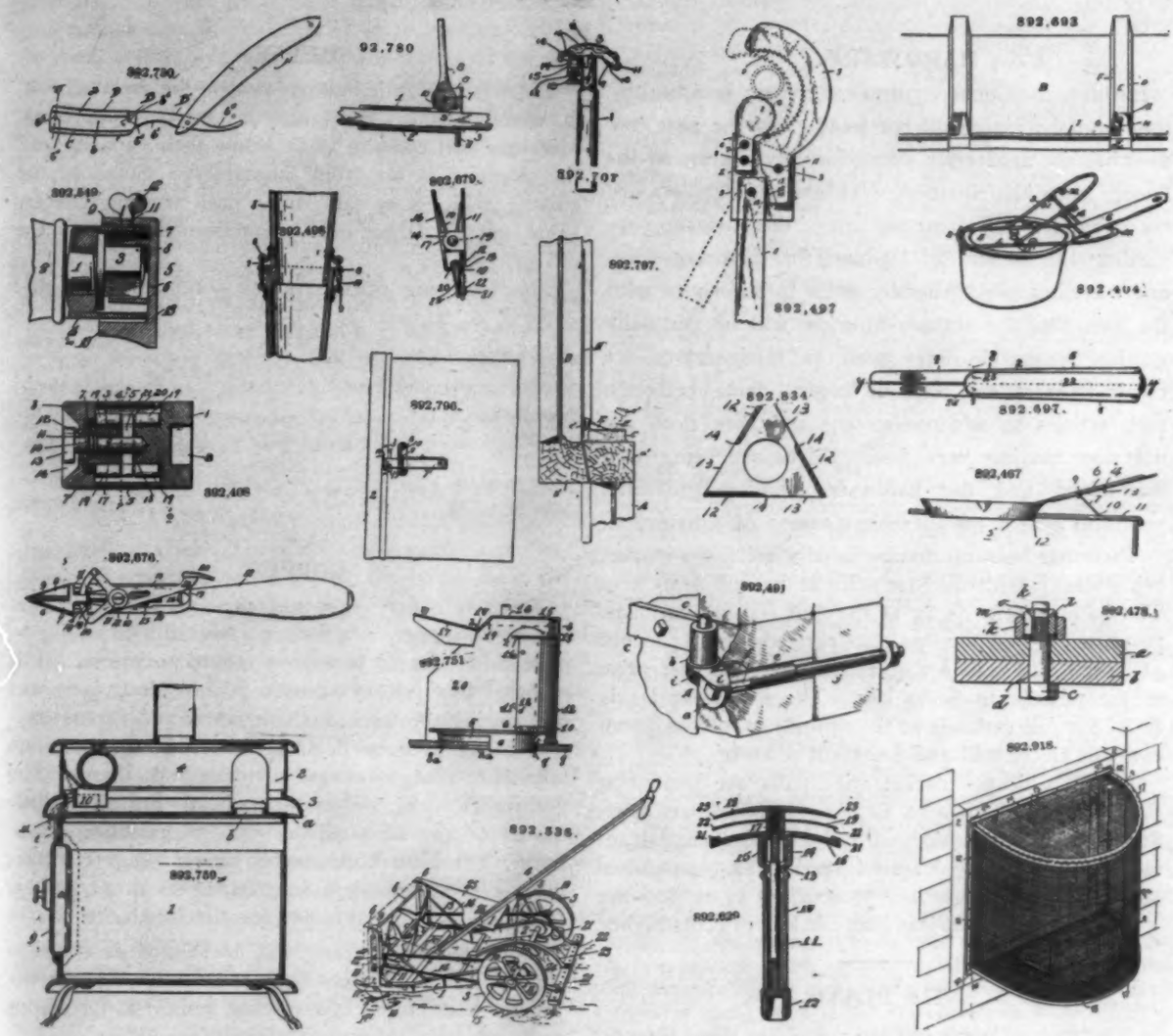
The American Can Co., is reported to be operating at its full capacity. This is the busy manufacturing season for the company, which is now meeting the demands of the canning industry in all parts of the country. The company's business to date for this year, it is declared, about equals that for the same period of 1907, contracts on hand being nearly as large in the aggregate as they were a year ago.

The Sykes Steel Roofing Co., 108-120 W. 19th Place, Chicago, makes a specialty of metal roofing and siding, corrugated sheets, painted or galvanized, metal window frames and sash glazed with wire glass; skylights and skylight gearing. The company will be pleased to furnish estimates upon request and to mail their price-list upon application. When making inquiries of the Sykes Steel Roofing Co. kindly mention THE AMERICAN ARTISAN.

The S. Keighley Metal Ceiling & Mfg. Co., Pittsburg, Pa., is distributing a folder which treats of the steel ceilings manufactured by the company and of the "Keighley Cure," which, when the lock-joint ceiling is employed, is said to save 50 per cent on the cost of erection. The company requests that they be sent plans or sketches, with measurements, of the ceilings desired, when they will prepare a special water-color drawing, showing the ceiling arranged to suit the room, and at the same time naming a net price on the material delivered to the customer. A large catalogue of ceiling designs may be had for the asking. When writing the S. Keighley Metal Ceiling & Mfg. Co., kindly mention THE AMERICAN ARTISAN.

The June issue of "Waterproofing and Fireproofing," a Detroit publication, contains an illustrated article on "Metal Roofs Make Buildings Storm-Proof," by W. J. Burton, of the W. J. Burton Co., Detroit, Mich. In this article Mr. Burton sets forth the advantages of metal shingles for roofing purposes over wooden shingles and slate, and dwells at considerable length upon the merits of the W. J. Burton Company's well-known Eastlake shingles, which the company has been manufacturing since the year 1883. Mr. Burton cites as one of the most important features of Eastlake shingles, the fact that they are provided with a patent telescopic side-lock, which provides for all contraction and expansion without wear or strain on the metal.

NEW PATENTS.



892,404—Kitchen Utensil. Horace L. Clark, Seattle, Wash., assignor to Augustus Armstrong, Seattle, Wash. Filed May 2, 1906. Serial No. 314,850.

892,408.—Wrench. Zora B. Custer, Bradford, Pa. Filed Apr. 4, 1908. Serial No. 425,227.

892,467.—Frying Pan. Lucy I. Toothaker, Portland, Me. Filed Mar. 4, 1907. Serial No. 360,390.

892,478.—Lock Nut Device. Joseph H. Wesson, Springfield, Mass. Filed Oct. 18, 1907. Serial No. 398,071.

892,491.—Hinge. Harry Zimmerman, Fremont, Ohio. Filed Oct. 17, 1907. Serial No. 397,880.

892,497.—Wrench. George T. Barr, Waco, Tex. Filed Aug. 23, 1907. Serial No. 389,892.

892,498.—Device for Filling Silos. William W. Bateman, Boonville, Ind. Filed Nov. 18, 1907. Serial No. 402,694.

892,536.—Lawn-Moving Machine. Emery M. Mitchell, Asheville, N. C. Filed Feb. 19, 1908. Serial No. 416,714.

892,549.—Wrench. Henry H. Ponton, Hope, Tex. Filed Feb. 1, 1908. Serial No. 413,897.

892,629.—Safety Razor. George P. Taylor, Clinton, Mass. Filed Apr. 9, 1906. Serial No. 310,669.

892,676.—Fruit and Vegetable Pitter. Dosier H. Mosteller, Chicago, Ill., assignor to the Mosteller Manufacturing Company, Chicago, Ill., a corporation of Illinois. Filed June 27, 1907. Serial No. 381,077.

892,679.—Razor Guard. Thomas Owens, Wilkesbarre, Pa. Filed Sept. 30, 1907. Serial No. 395,212.

892,693.—Sheet Metal Roofing. Leon Stein, Passaic, N. J. Filed Aug. 17, 1907. Serial No. 389,081.

892,697.—Stove-Cover Lifter. John Werner, White Sulphur Springs, Mont. Filed Oct. 29, 1907. Serial No. 399,785.

892,707.—Safety Razor. Horace S. Buckland, Fremont, Ohio. Filed Mar. 4, 1907. Serial No. 360,481.

892,750.—Razor. Jules F. Leresche, St. Julien-du-Sault, France. Filed Aug. 18, 1906. Serial No. 331,101.

892,751.—Cooking Utensil. Anton T. Lueckenbach, Neenah, Wis. Filed Apr. 26, 1907. Serial No. 370,456.

892,759.—Heating Stove. George D. Neavitt, Centerville, Md. Filed Mar. 8, 1907. Serial No. 361,328.

892,780.—Carpenter's Gage. Benjamin A. Vaughn, Corning, Cal., assignor of one-half to Rudolph Madsen, Oakland, Cal. Filed Feb. 29, 1908. Serial No. 418,517.

892,796.—Latch. Frank N. Beacom, Manchester, Iowa. Filed Nov. 30, 1907. Serial No. 404,517.

892,797.—Sash Lock. Marcus A. Beeman, Cleveland, Ohio. Filed Mar. 18, 1908. Serial No. 421,883.

892,834.—Nut Lock. James F. Huffman, Memphis, Tenn. Filed July 17, 1907. Serial No. 384,159.

892,918.—Window Screen. Howard C. Warfield, Brooklyn, N. Y. Filed June 27, 1907. Serial No. 381,105.

Trade Report.

HARDWARE.

Business conditions continue to remain in a healthy state and the extremely hot weather of the past few days has not apparently exerted a very depressing influence upon the situation. Jobbers and retailers are not exhibiting any great amount of dissatisfaction regarding the amount of business that is being done, and traveling men, generally, seem to be imbued with the idea that the autumn business will be unusually good. Seasonable lines such as refrigerators, ice cream freezers, etc., continue in good demand, though such articles as window screens and wire cloth are not now moving very fast. Prices are being well maintained and the hardware situation, generally, seems to give a considerable measure of satisfaction.

There has been no change in wire nails, the market being steady, with the base price at the mill $1.95 keg. The jobbing price is $2 at the mill for full carloads, $2.10 at the mill for less than carloads and $2.40 out of store. Cut nails are quiet and easy, the base price at the mill being $1.80 keg. The jobbing price is $1.85 for full carloads at the mill, $1.95 for less than carloads at the mill and $2.25 out of store.

In the Chicago market wire nails are quoted at $2.13; painted barb wire, $2.28; galvanized barb wire, $2.58; smooth annealed wire, $1.98; smooth galvanized wire, $2.28; galvanized staples, $2.53; polished staples, $2.23. Quotations to retailers in car lots are 5 cents higher and in less than car lots 15 cents higher.

TIN PLATE.

Tin plate mills are still busy, and are about the only branch of the steel industry that is running full, but the sheet mills are not operating more than 40 per cent of their capacity. All the independent sheet and tin plate makers have accepted the wage scales arranged by the Amalgamated and the leading producer. Galvanized plates are also in good request, but black plates are still a little slow. Prices are $3.89 for 100-pound coke plates f. o. b. New York and $3.70 at Pittsburg mills, with the independents quoting $3.65.

Am. coke tins, I. C., from store, New York:

Bessemer steel, 107 lbs., 14x20	$4.35@4.40
Bessemer steel, 100 lbs., 14x20	4.20@4.25
Bessemer steel, 95 lbs., 14x20	4.10@4.15
Bessemer steel, 90 lbs., 14x20	4.00@4.05
Am. charcoal terne, 8-lb. coating—	
Worcester grades, 14x20, 107 lbs	4.30@4.35
Worcester grades, 14x20, 100 lbs	4.15@4.20
Worcester grades, 20x28, 200 lbs	8.05@8.10
For prompt shipment, f. o. b. mill—	
Coke, tins, 14x20, I. C	3.85@3.90
Coke, tins, 14x20, 100 lbs	3.70@3.75
Coke, tins, 14x20, 95 lbs	3.65@3.70
Coke, tins, 14x20, 90 lbs	3.60@3.65
Charcoal, terne, 20x28, I. C	7.30@7.35
Charcoal, terne, 20x28, 200 lbs	7.00@7.05

Usual differences for odd sizes and weights.

SHEETS.

There is very little improvement in the sheet market, in which business continues in small proportions. Mills are still running away below their capacity and the situation is far from satisfactory. Some of the smaller mills, it is said, have been making concessions, but the larger ones are adhering firmly to the old prices.

The following prices are for 500-bundle lots and over, f. o. b. mill:

	—Galvanized— Net.
No. 30	4.05
No. 29	3.80
No. 28	3.65
No. 27	3.35
Nos. 25 to 26	3.15
Nos. 22 to 24	2.95

COPPER.

There is a very slow improvement in the market for ingot copper, as producers are still unwilling to meet the views of buyers in regard to prices. It is reported that fully 10,000,000 pounds electrolytic was sold during the week, both domestic and export buyers having been in the market. There is no more talk about a large increase in stocks, and an impending decline in prices, but at the same time there is little chance of any sharp advance under prevailing conditions. The New York market shows a slightly firmer tone, with quotations a fraction higher at 12,80@13c for Lake and 12.75@12.85c for electrolytic.

Sheet copper is steady and unchanged at 17c base. Yellow metal is unchanged at 16c for dimensions, 14c for sheathing and sheathing nails, 15c for slating nails and 16c for keel and stem metal.

Extreme fluctuations for the year:

	Highest.	Lowest.
Electrolytic copper, spot	13¾	12¼
Lake copper, spot	13⅞	12⅝
Casting copper, spot	13½	12⅛

SHEET ZINC.

Business in sheet zinc continues of small proportions. Consumers are taking nothing beyond actual requirements for immediate use, and trading is mainly routine in character. Prices are steady on the basis of $7.00 per 100 pounds f. o. b. smelter, with 8 per cent discount. There is no charge for extras. Prices on cask lots are held at $7.05@7.15 per 100 pounds.

SPELTER.

Spelter is very dull, and prices are quoted lower in the New York market at 4.45@4.55c, as to quantity. St. Louis is quoting 4.30c, with the market dull. The Boston jobbing price is 4⅞@5c.

Extreme fluctuations for the year:

	Highest.	Lowest.
Spot, New York	4.80c	4.32½c
Spot, London	£22 0 0	£18 0

IRON BARS.

Concessions in prices on iron bars, which have been brought about by the reduction in the price of steel bars, have caused a little better buying movement. Orders, however, are not for large tonnages, but the indications are for a material improvement. Prices are still a little irregular, and, while most of the mills are holding at 1.40 at the mill, it is understood that this figure has been done delivered at New York.

COKE.

New business in coke continues to come out slowly. There is a fair call for carload lots for immediate shipments, but nearly all the large contracts for delivery over the balance of the year have been placed. Coke manufacturers are uninclined to make contracts for delivery next year yet, and it is believed that quotations for 1909 delivery will be on a higher basis. Prices are fairly steady at $2.25@2.50 for foundry grades, while furnace is quiet, and held about at $1.75 @2.00 for both spot and futures.

FINISHED AND STRUCTURAL STEEL.

There is a slow improvement noted in the market for finished steel. There does not seem to be much doing in structural steel, though the larger mills have recently taken some large contracts for buildings and bridges in the East as well as in the West. Steel bars are quite active, not only in the way of specifications on old contracts, but also in new contracts being placed.

PIG IRON.

There is a very quiet tone in the pig iron market, especially in New England, where the activity noted in May and June seems to have subsided. In New York and the middle West also there is less business doing than was reported last month, although relatively more iron is being called for than in the Eastern markets. In other years this would not be considered an unusual condition for July, but this year, owing to excessive quiet during the early months of the year it attracts more attention than would otherwise be the case.

The current demand is almost entirely for deliveries to be made during the remainder of the year, but occasionally there is a request for 1909 delivery. Nothing has been done for next year of any note, as the furnaces will not accept contracts at current prices. Whatever inquiries have come to hand have been largely in the nature of testing the market and have not yet resulted in any business. There is very little change to note in prices, although the falling off in the demand has naturally resulted in a little easier tone. For instance, while Alabama iron is still quoted at $12@12.50, but very little is being sold at the outside range. The ruling price seems to be $12 f. o. b. Birmingham, yet it cannot be learned that this has been shaded. At the same time a very large buyer might be able to secure a trifling concession. Virginia iron is firm at $18.25@18.50 delivered on the wharf in Boston, all rail iron costing 83c per ton more. Pennsylvania iron is still quoted at $18.25@ 18.75, New England delivery, all rail freight.

CHICAGO MARKET.

Lake Superior charcoal	$19.50@20.00
Northern foundry No. 1	17.50@18.00
Northern foundry No. 2	17.00@17.50
Northern foundry No. 3	16.50@17.00
Southern foundry No. 1	16.35@16.85
Southern foundry No. 2	15.85@16.35
Southern foundry No. 3	15.35@15.85
Southern foundry No. 4	14.85@15.35
Southern No. 1 soft	16.35@16.85
Southern No. 2 soft	15.85@16.35
Southern gray forge	14.35@14.85
Southern mottled	15.10@15.60

PITTSBURG MARKET

No. 1 foundry	16.15@16.40
No. 2 foundry	15.90@16.15
Gray forge	14.90@15.15
Bessemer	16.65@17.90
Basic	16.15@16.40

BIRMINGHAM MARKET.

No. 1 foundry	12.50@13.00
No. 1 soft	12.50@13.00
No. 2 foundry	12.00
No. 2 soft	12.00
Gray forge	10.50

Matthew Addy & Co., Cincinnati, will say in their weekly report: "There is a unanimous opinion in the iron trade that business will be much better in the fall. All the signs point that way. We have this week seen a great many prominent ironmasters and consumers, and they all agree in expressing the belief that things are getting in shape for a real improvement before the third quarter of the year has ended.

"It is noticeable that there is more interest being shown in the market. There are several large inquiries and the week has been markd by one or two fine sales and by the usual number of small transactions.

"The feature of the present situation is the uncertainty of the results of the strike of the union coal miners of Alabama. The strike is threatening to seriously curtail the coke supply and the miners hope to be able to force a number of furnaces to bank. If this were the case it would develop a shortage of the supply of southern iron in a short time as there is no reserve stock and the present output is being shipped out as fast as made. As a matter of fact the iron output of the country is today only about half what it was a year ago and supply and demand are so close together that the stoppage of any considerable part of the active merchant furnaces would cause trouble. Undoubtedly if the Birmingham furnaces were stopped it would be a help to the northern merchant stacks as they would then have a clearer field. But the strikers have not yet accomplished enough to more than seriously annoy the furnaces—not cripple them. A large amount of Virginia coke has been sold for quick shipment to Alabama."

Rogers, Brown & Co., Cincinnati, will say in their weekly report: "Sentiment and market in pig iron show slight change over a week ago. There is a good run of current business, prices are firm and the prospects for continued improvement brighter from day to day.

"There has been renewed activity in certain lines of iron consumption, which, while not great, yet are better off today than at any time for ten months past.

"The best promise extended at the present time is the crop outlook and the new practical assurance that these will be of unusual magnitude.

"Already this influence has been at work and the efforts which must be made by railroads to care for this immnse product will be felt in more than one direction in the iron market. There is a hesitancy on the part of some furnaces in quoting for very extended delivery at present figures and this attitude is interfering somewhat with the placing of large tonnage.

"Coke is unchanged. Production has increased but movement is good and prices are firm."

Current Hardware and Metal Prices.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly.

METALS.

FIRST QUALITY BRIGHT PLATES.

		Per Box.
IC	14x20	$6 40
IX	14x20	7 45
IXX	14x20	8 60
IXXX	14x20	9 85
IXXXX	14x20	11 00
IC	20x28	13 70
IX	20x28	15 70
IXX	20x28	18 15
IXXX	20x28	20 55
IXXXX	20x28	22 95

COKE PLATES.

Cokes, 180 lbs	IC	20x28	$ 8 50
Cokes, 200 lbs	IC	20x28	9 00
Cokes, 216 lbs	IC	20x28	9 50
Cokes, 270 lbs	IX	20x28	11 25

PIG IRON.

North'n Fdy., No. 1	$17 50@$18 00
North'n Fdy., No. 2	17 00@ 17 50
North'n Fdy., No. 3	16 50@ 17 00
Southern Fdy., No. 1	16 85@ 17 35
Southern Fdy., No. 2	16 35@ 16 85
Southern Fdy., No. 3	15 85@ 16 35
Southern Fdy., No. 4	15 35@ 15 85
Southern No. 1 Soft	16 85@ 17 35
Southern No. 2 Soft	16 35@ 16 85
Southern Gray Forge	14 35@ 14 85
Southern Mottled	15 10@ 15 60
Lake Sup. Charcoal	19 50@ 20 00
Southern Silveries, 4% Silicon	17 55@ 18 35
Southern Silveries, 5% Silicon	18 35@ 18 85
Southern Silveries, 6% Silicon	19 35@ 19 85
Jackson Co. Silveries, 6 per cent	19 90@ 20 40
Jackson Co. Silveries, 8 per cent	20 90@ 21 40
Jackson Co. Silveries, 10 per cent	22 90@ 23 40
Malleable Bessemer	17 00@ 17 50
Standard Bessemer	18 25@ 18 75
Alabama Basic	16 35@ 16 85

BLACK STEEL SHEETS.

Nos. 11-12	per 100 lbs.	$2 10
Nos. 13-14	per 100 lbs.	2 15
Nos. 15-16	per 100 lbs.	2 20
Nos. 17-21	per 100 lbs.	2 25
Nos. 22-24	per 100 lbs.	2 30
Nos. 25-26	per 100 lbs.	2 35
No 27	per 100 lbs	2 40
No 28	per 100 lbs.	2 50

GALVANIZED

No. 10	per 100 lbs.	$2 45
Nos. 12-14	per 100 lbs.	2 55
No. 16	per 100 lbs.	2 65
Nos. 17-21	per 100 lbs.	2 80
Nos. 22-24	per 100 lbs.	2 95
Nos. 25-26	per 100 lbs.	3 15
No. 27	per 100 lbs.	3 35
No. 28	per 100 lbs.	3 55

POLISHED SHEET STEEL.

No. 24	per 100 lbs	$4 90
No. 26	per 100 lbs.	5 00
No. 27	per 100 lbs.	5 10
No. 28	per 100 lbs.	5 20

SMOOTH STEEL.

Wood's Smooth, No. 20		$3 05
" "	No. 22-24	3 10
" "	No. 25-26	3 15
" "	No. 27	3 20
" "	No. 28	3 30

PATENT PLANISHED SHEET IRON.

Patent Planished Sheet Iron, ..."A" $10.20,"B" $9 20

PATENT PLANISHED SHEET STEEL.

Dickey Planished Sheet Steel.....8½c

SOLDER.

XXX Guaranteed ½ & ½	per lb. 18 c
Commercial ½ & ½	per lb. 17½c
No. 1 Plumbers	15½c

SHEET ZINC.

500 lb. Casks	case, per cwt. $7 15
300 lb. Casks	per cwt. 7 15
Sheets	per cwt. 7 15

COPPER.

Copper sheet, 100 lbs. over, base...17c

TIN PIGS AND BARS.

Banca, pigs, per lb	29 c
Straights, pigs, per lb	29 c
Straights in bars, per lb	33 c

LEAD.

American Pig	4 c
Bar	4 c
National (White) brands (in less than 100 lb lots), per lb	8½c
Sheet.	
Full coils	per 100 lbs. $9 00
Cut coils	per 100 lbs. 9 50

HARDWARE.

ADZES.

Carpenters'.	
Plumbs	40%
Coopers'.	
Barton's	20%
White's	15%
Railroad	
Plumbs	40%
Ship.	
Plumbs	40%
White's	12½%

AMMUNITION.

Caps, Percussion—per 1,000.	
F. L Waterproof, 1-10s	40c
G D	35c
Musket	60c
Shells, Loaded—	
Loaded with Black Powder	40%
Loaded with Smokeless Powder, medium grade	40 & 5%
Loaded with Smokeless Powder, high grade	40 & 10 & 10%
Union Metallic Cartridge Co.:	
New Club, Black Powders	40%
Nitro Club, Smokeless Powders,	40 & 5%
Arrow, Smokeless Powders	40 & 10 & 10%
Winchester:	
Smokeless Repeater Grade	40 & 5%
Smokeless Leader Grade	40&10&10%
Black Powder	40%
Gun Wads—per 1,000.	
Winchester Gun Wads	15%

Powder.	Each.
DuPont's Sporting, kegs	$ 50
" " ½ kegs	2 50
" " ¼ kegs	1 40
Dupont's Sm'k'less, 50-lb. drum	22 45
" " 25-lb. kegs	11 30
" " 12½-lb. kegs	5 80
" " 6½-lb. kegs	2 97
" 1-lb. cans	15
Shot.	
Drop shot, sizes smaller than B, 25-lb. bags, per bag	1 95
Drop shot, B and larger sizes, 25-lb. bags, per bag	2 20
Buck Shot, 25-lb. bags, per bag	2 20
Chilled Shot, 25-lb. bags. "	2 20

ANCHORS

Expansion Screw Anchors 10%

ANVILS

Trenton, 70 to 80 lbs	9½c per lb
Trenton, 81 to 150 lbs	9½c per lb

ASBESTOS.

Board and Paper.....33⅓%

AUGURS.

Boring Machine	70%
Irwin's	40&10%
Carpenter's Nut	70%
Hollow.	
Bonney's—list $30.00	75&5%
Stearns, No. 3	36 00
Post Hole.	
Digwell, 8-inch, per doz.	12 50
Iwan's Post Hole and Well	40%
Vaughan's, 4 to 9-in., per doz.	6 25
Rafting.	
Snell's	50&5%
Ship.	
Ford's, with or wi'out screw	40-12½%
Snell's " " "	40-5%

AWLS.

Brad.	
No. 3 Handled, per doz.	$0 40
No. 1050 Handled "	80
Shouldered, assorted, 1 to 4, per gro.	$1 20
Patent asst'd, 1 to 4 "	85
Harness.	
Common "	95
Patent "	90
Peg.	
Shouldered "	1 20
Patent "	60
Scratch.	
No 1 handled "	4 80
No. 15, socket handled per doz.	1 25
No. 7 Stanley	1 50
Sewing.	
Common, per gro.	90
Patent "	90

AXES.

Boy's Handled.	
Lippincott, 3 lb., per doz.	$6 00
Falls City "	6 00
Broad.	
Plumbs, West, Pat	33⅓%
" Can. Pat	40%
" Firemen's (handled) per doz	$1, 75
Plumbs, Miners' (handled) "	6 75
Single Bitted (handled)	
Gladiator, 3 to 4 lbs, per doz	$11 00
Flint Edge " " "	9 25
Standard " " "	9 25
Elec Chopper, Forest Clipper	10 50
Perfect Premier " "	10 00
Crown " "	7 00
Single Bitted (without handles)	
Gladiator...3 to 4 lbs. per doz.	$8 50
Flint Edge. " "	7 00
Standard... " "	7 00
Electric Chopper" "	8 25
Perfect... " "	7 75
Crown... " "	5 25
Double Bitted (without handles).	
Gladiator... 3 to 4 lbs. per doz.	11 50
Flint Edge. " "	9 75
Perfect... " "	11 00

The above prices on axes of 3 to 4 lbs. are the base prices.

3½ to 4½ lbs advance 25c
4 to 4½ lbs. advance 50c.
4½ to 5½ lbs. advance 75c.

BAGS, PAPER NAIL.

Pounds	10	16	20	25
Per 1,000	$2.50	3.75	4.50	5.00

BALANCES, SPRING.

Frary's	40%
Pelouze	20%

BARS, CROW.

Pinch or Wedge Point..per cwt. $3 75

BASKETS.

Clothes.			
Small Willow, per doz.	$7 00		
Medium " "	8 75		
Large " "	10 50		
Galvanized Iron.	½ bu.	1 bu.	1½ bu.
Per doz	$4 75	6 50	8 00

BEATERS.

Carpet.	per doz.
No. 10 Coppered Spring Wire	$0 90
No. 12 Spring Wire	1 10
No. 10 Preston	1 10
Egg.	Per doz.
No. 50 Imp. Dover	$0 75
No. 102 " " tinned	85
No. 150 " " hotel	1 40
No. 10 Heavy hotel tinned	2 10
No. 13 " " "	3 30
No. 15 " " "	3 60
No. 18 " " "	4 50

BELLOWS.

Blacksmiths'	65%
Hand.	
8-inch, per doz.	$8 50
10-inch "	10 50
Moulders'.	
12-inch "	12 50

BELLS.

Call.	
3-inch Nickeled Rotary Bell, Bronzed base, per doz.	$5 00
Cow.	
High Grade	60%
Kentucky	65&10%
Door.	Per doz.
New Departure Automatic	$6 00
Rotary.	
3 -in. Old Copper Bell	4 00
3 -in. Old Copper Bell, fancy	6 00
3 -in. Nickeled Steel Bell	4 50
3½-in. Nickeled Steel Bell	5 00
Hand.	
Hand Bells, polished	50&5%
White Metal	40%
Nickel Plated	30%
Swiss	40&33⅓%
Silver Chime	33⅓%
Miscellaneous.	
Church and School, steel alloy	50%
Farm, lbs. 40 50 75 100	
Each $1.25 1.00 2.35 2.85	

BEVELS, TEE

Stanley's, rosewood handle, new list	25%
Stanley's iron handle	25%

BINDING, OILCLOTH.

Zinc	80%
Brass	70&10%
Brass plated	75&5%

BITS.

Auger.	
Extra Double Spur	70&10%
Ford's Car and Machine	40&10%
Triumph	50&5%
Ford's Ship	40&10%
Irwin	50%
Russell Jenning's	25&10%
Clark's Expansive	60%
Steer's " Small list, $22.00	25%
" " Large " $26.00	25%
Irwin Car	45%
Ford's Ship Auger pattern Car	40&10%
Center	40&10%
Countersink.	
No. 18 Wheeler's, per doz.	$1 25
No. 20 " " "	1 75
American Snail head "	75
" Rose " "	90
" Flat "	75
Mayhew's Flat "	1 25
" Snail "	1 25
Dowell	
New Jennings	40&10%
Gimlet.	
Standard Double Cut	60%
German Pattern, per doz.	$0 60
German "	65
Gouge "	80
Spoon "	80
Countersink "	1 00
Reamer.	
Jenning's Square "	2 50
Standard Square "	75
German Octagon "	75
Screw Driver.	
No. 7 Common "	50
No. 1 Triumph "	1 25
No. 2 " "	1 —
No. 340 Shepardson's "	—
No. 1 Smith's "	—

BLACKING, STOVE. (See Polish).

BLADES, SAW.

Butchers'.
Standard, ¾ & 1½-in.....40%
Clock Spring.....40%
Star.....15%
Coil.....each, $1 50
Hack.
Disston's.....25&5%
Flexible.....33⅓&5%
Star.....20&5%
Wood.
Jackson's.....per doz. $2 25
Disston's—No. 6, 16, 26 & 045.. 4 25
Triumph..... 3 50
Forest Clipper..... 3 00

BLOCKS.

Snatch.
Wooden.....60&10%
Steel.....50%
Tackle.
Iron Strapped.....70%
Com. Steel.....60%

BOARDS. (New List)

Slow.....50&10%
Wash.
Globe, single.....per doz. $2 50
Globe, double..... " 3 35
Peace Maker..... " 3 00
Crystal Glass..... " 4 00
Brass King..... " 4 00
Nickel Plate..... " 4 15

BOBS, PLUMB.

Carpenters'.
No. 2, iron.....per doz. $0 65
No. 00, " ..... " 1 30
No. 0, " ..... " 1 80
No. 3, lead..... " 2 90
No. 4, " ..... " 3 40
No. 113, brass plated.. " 1 10
No. N30, nickel plat'd. " 1 30
No. N31, " " " 1 85

BOLTS.

Carriage, Machine, etc.
Carriage, ¾x6 and sizes smaller and shorter.....70&10%
Carriage, sizes larger and longer than ¾x6.....60&5%
Machine, ¾x4 add sizes smaller and shorter.....70&10%
Machine, sizes larger and longer than ¾x¾x4.....60&5%
Elevator.....50-10&5%
Plow.....60&10%
Stove .....80&10%
Tire.....75%
Wagon Box Strap.....70%
Mortis, Door.
Gem, iron.....60%
Gem, bronze plated.....20%
Barrel.
Cast.....60%
Wrought.....
Wrought, bronzed.....50%
Flush.
Wrought.....50&10%
Spring.
Wrought.....
Wrought, heavy.....
Square.
Cast.....50&10%
Wrought.....

BORERS.

Angular.
Miller's Falls.....per doz. $13 00
Bung.
Doz.
Enterprise Mfg. Co 's No 1... $14 00
" " " No 2.. 18 50

BOXES

Mail, No..... 1 2 10
Per doz.....$3.50 5.00 17.50
Miter.
New Langdon.....15&5%
Stanley's.....30%
Seavey's.....each, $1 50

BRACES.

Barber's .....50&10&10@50&10&15%
Fray's Genuine Spofford's.....60%
" Nos. 66 to 146.....50%
" No. 0108..... $3 50
" No. 08..... 2 75
" No. 010..... 2 85

BRACKETS.

Hay-Rack.
Wenselmann's No. 1, per doz. $9 00
" No. 2, " 9 60
Shelf.
Cast Iron, bronzed.....50-10&5%
Clover Wrought Steel.....70&10%
Clover Folding 70%

BROILERS.

Wire..... 70%
No. Cwron, Self-basting, 80dos .. $2 50

BUCKETS.

Pump, Rubber.
Wychoff.....per gro. $4 75
Cooper..... " 4 75
Champion..... " 7 50
Victor..... " 9 25
Star..... " 5 00
IXL..... " 6 75
Well.
Galv'd Qts..... 10 12 14
Per doz.....$2.90 $3.25 $3.40
Wooden, top ear, plain, per doz. 4 00
" " swivel, " 5 10

BUCKS, SAW.

Folding.....per doz. $2 10

BURRS, RIVETING.

Copper Burrs only.....30%
Tinners' Iron Burrs only.....65&5%

BUTTS.

Cast Iron.....70&5%.
Wrought Brass (New List).....40%
Wrought Steel, Bright.
Wrought Steel, Japanned.
Nos. 731 and - .....70&10%

CALIPERS.

Double.....65&5%
Inside and Outside.....65&5%
Wing.....70%

CALKS.

Logger's Boot.
(Lufkin R. Co.'s), per M..... $3 75
Toe.
Shoenberger.....per lb 5 c
Bessemer..... " 4½c
American..... " 7 c
Swedes..... " 8½c

CANS.

Cheese Factory.
Ontario Pattern.
Gallons..... 20 30 40
Each..... $4.25 $5.00 $6.25
Milk.
Holstein.
Nos..... 300 301 302
Gals..... 5 8 10
Per doz.....$26.00 $27.00 $29.00
Chicago Pattern.
Nos..... 105 108 110
Per doz.....$19.00 $21.50 $23.00
Iowa Pattern.
Nos..... 408 410
Per doz..... $23.50 $24.50
New Elgin Pattern.
Nos 705 708 710
Per doz.....$25.00 $27.00 $28.00
Burn Pattern
Nos..... 700 701
Gals..... 8 10
Price..... $2.40 $2.65

CAN OPENERS.

See Openers.

CAPS, GUN.

See Ammunition.

CARPET STRETCHERS.

See Stretchers.

CARRIERS.

Hay.
Diamond, Regular.....each, $3 85
Diamond, Sling..... " 6 50
Myers' Imperial ..... " 3 85
Myers' Clover Leaf..... " 4 00

CARTRIDGES.

See Ammunition.

CASTERS.

Standard—Ball Bearing.....50&10%
Bed.....60&5%
Common Plate.
Brass Wheel.....60&10%
Iron and porcelain wheels, new list.....60&5%
Philadelphia Plate, new list.....70%
Martin's.....60%
Payson's.....75&10%

CATCHERS, GRASS.

Carroll's, No. C.....per doz. $4 25
Wildermuth's,.
Nos..... 1 2 3
Per doz.....$5.60 $5.75 $6.25
Nos..... 4 5 6
Per doz.....$6.75 $9.50 $10.00

CHAIN AND CHAINS.

Breast Chains.
Doubleslack.....doz. pairs, $5 75
With Covert Snaps. " 5 00
With Slide..... " 3 25
Without Slide..... " 2 85
Bright Ox Chains.
¾-in. $7.25; ⅝-in. $5.45 per 100 lbs.

Cable Coil Chain.
Inch..... 5/16 ⅜ 7/16 ½
Per 100 lbs.$10.80 $8.00 $7.00 $6.20
Inch..... 7/16 ½ ⅝ ¾
Per 100 lbs.$6.00 $5.00 $5.75 $5.65
Inch..... ¾ 1 1¼
Per 100 lbs.....$5.55 $5.55 $5.65
Cable Log Chain.
Advance 25c per 100 lb. on Cable Coil.
Cow Tie Chains.
American, 2 toggle.....50&5%
" toggle and snap...50&5%
" open and closed ring.....50&5%
Halter Chains.
American, new list.....33⅓%
German.....60%
Niagara, new list.....40%
Brown's, " 40%
Picture Chains.
Light Brass, 3 ft.....per doz. $0 65
Heavy Brass, 3 ft .... " 1 00
Pump Chain
Galvanized, per 100 lbs.....$5 50
Safety Chain.
Brass.....60%
Special Steel Loading Chain.
Inch..... ¾ 9/16 5/8
Per 100 lbs.....$16.00 $13.50 $12.50
Stretcher Chains.
5/16-in. $8.50; ⅜-in. $7.75 per 100 lbs.
Tie-Out Chains.
Brown's.....70&5%
Trace Chains.
Western Standard.
6½— 6-2.....per pair 30c
6½— 8-2..... " 34c
6½— 8-3..... " 33c
6½—10-2..... " 38c
7 — 8-2..... " 38c
7 —10-2..... " 42c
7 —10-1..... " 48c
7 —10-0..... " 60c
Add 2c per pair for Hooks.
Add 2c for Twist Link.
Wagon Stay Chains.
Inch..... ½ 7/16 ⅝
Per 100 lbs.....$6.50 $6.00 $5.50

CHALK, CARPENTERS'.

Blue.....per gro. 75c
Red..... " 75c
White..... " 75c
Common White School Crayon..... " 8c

CHARCOAL.

In bags.....per bag 90c

CHECKS, DOOR.

Blount.....33⅓%
Sargent's.....33⅓%

CHIMNEY TOPS.

Iwan's Volcano.....50%

CHISELS.

Box.
Inches..... 10 12 14
Round per doz....$2.10 $2.25 $2.75
Flat " ... 2.85 3.60 4.20
Cold.
Good quality, ⅝ in. and larger.....per lb. .12c
Smaller size per doz.....
Socket, Framing and Firmer.
Clover .....75&10%
Tanged, Firmer.
With handles..... 30&5%
Choppers, See *Cutters, Meat.*

CHUCKS, DRILL.

Goodell's, for Goodell's Screw Drivers.....per doz. $6 25
Yankee, for Yankee Screw Drivers..... 5 00

CHURNS.

Anti-Bent Wood.
Gal..... 5 7 10
Each.....$3.90 $4.00 $4.85
Belle, Barrel..... 65&7½%
Common Dash, Gal. 4 5 6
Per doz..... $7.75 $8.50 $10.50
Union, Gal..... 5 7 10
Each.....$3.65 $3.90 $4.75

CLAMPS.

Adjustable.
Martin's.....30%
Carpenters'.
Steel Bar.....25%
Hose.
Sherman's, brass, ½-in., per doz.. 42c
Double, brass, ½-in., " 90c
Saw Filers.
Disston's list, $30.00.....30%
Stearns', No. 0, $3.50; No. 1, $11.50; No. 3, $5.00 doz.
Wentworth's, No. 1 $6.00; No. 3 $7.50.

CLAWS, TACK.

Cast, wood hdle..... per doz.45@60c
Forged steel, wood hdle " $0.80
Solid steel..... " 1 00
Giant..... " 50

CLEANERS.

Drain.
Iwan's Adjustable.....55%
Iwan's Stationary.....40&5%
Pot.
Wire.....per doz. $0 55
Side-Walk.
Steel.....per doz. $3 25
XLCR .....65&5%

CLEAVERS

Family.
Griffin, Inch..... 6 7 8
Per doz.....$5.50 $5.75 $6.25
Royal.....per doz. 2 25
Butchers.
Plumbs.....25%

CLEVISES

Malleable .....5½c lb

CLIPPERS.

Bolt.....$1.90@4.75

CLIPS.

Axle.....65&5%
Damper.
Standard.....per doz. 65c
Troy..... " 38c
Home..... " 17

CLOTH.

Emery.
Star.....50%
B. & A.....50%
Hardware Wire—full rolls (100 ft.)
2 to 3 incl., Galv.—in full roll.. 2 75
4 and 5..... " .. 3 00
6..... " .. 3 25
7 and 8..... " .. 3 75
Screen Wire.
12 mesh, painted, per 100 sq. ft.. 1 35

COCKS AND FAUCETS.

Compression Plain Bibbs...60, 10&5%
Lever Bibb Cocks.....60, 10&5%
Compression Hose Bibbs ..50—10&5%
Telegraph Faucets (new list)..50—5%
Racking Cocks (new list)...60, 10&5%
Compression Lock C'ks(new list).70%
Andrew's Brass Faucets.....70%
Angle Plug Faucets, per doz....$0 85
Milk Can Faucets, per doz..$2.60-4.20
Petroleum Faucets .....75&5%

COLLARS, STOVE PIPE.

Inches..... 5 6 7
Plain Tin..per gro.$1.90 $2.40 $3.50
Japanned Tin " 3.00 3.00 4.25
Lacquered Brass" 3.00 5.50 4.25

COMBS, CURRY.

Nos... 000 11 15 30 89 108
Per Doz..$.37 .60 1.90 .90 1.15 .80
Nos... 299 320 390 532 620 1400
Per Doz.$1.05 .85 1.35 1.20 .75 1.40

COMPASSES.

Carpenters'.....60—10—10%
Pencil—Faber's.....per doz. $1.00

COPPER—See Metals.

COPPERS.

Soldering.
1 lb.....per lb 30c
1½ lb.....31c 2 lb... " 29c
3 lb and larger..... " 28c

CORD.

Picture
White Wire (new list) .....85&10%
Sash.
Monarch Braided Flax...per lb
Silver Lake. white. 7-32 in. "
Silver Lake, white, 8-32 in. "
Keystone.....8-32 in. " 29c

CORKSCREWS.

Humason & Beckley.....33⅓%
Walker's.....33⅓%
Williamson's Regular.....40&10%
Williamson's Forged Worm.....50%

COTTERS, SPRING.

All sizes—new list.....90&30%

COUPLINGS, HOSE.

Brass.....per doz. $
Brass Plated..... " 85

COVERS, WAGON—See Tents.

CRADLES, GRAIN.

Morgan's Grapevine....per doz.$22 75

CRAYONS—See Chalk.

CROW BARS.

Inch or Wedge Point.....per lb 3½c

GUTTERS.

Glass.
Red Devil.....45%
Smith & Hemenway Co.....50%
Woodward.....40%
Meat.
Enterprise, Nos. 5, 10, 12, 22, 32 and 42.....25%
No. 202. list, $1.50 ea.....40&7½%
Pipe.
Stanwoods. No.... 1 2 3
Each.....$0.85 $1.50 $4.00
Slaw and Crout.
3-knife Grout.....per doz. $9 75
1-knife Slaw..... " 1 65
2-knife Slaw..... " 2 25
Washer..... " 7 75

DAMPERS, STOVE PIPE.

Jewel.....50&10%
American.....50%

DIES AND STOCKS.

Discount.....40%
King's, Little Giant.....33⅓%

DIGGERS.

Post Hole.
Acme.....per doz. $9 25
Atlas..... " 9 00
Eureka..... " 7 50
Hercules..... " 10 25
Iwan's Split Handle.. " 7 50
Iwan's Perfection.... " 9 00
Iwan's Hercules pattern " 10 00
Ryan's..... " 17 00
See also Augers—Post Hole.
Dividers, Wing.....65&10%

DOOR CHECKS—See Door.

DOORS, SCREEN.

⅞ in. 4-panel, painted...per doz. $7 93
1⅛ in. 4-panel, painted... " 9 50
1⅛ in. 3-panel, natural pine, fancy..... " 12 40

DOOR HANGERS—See Hangers.

DRILLS.

Bit Stock.....60&10%
Blacksmith's Twist.....60%
Breast.
Fray's No. 9.....each, $1 75
Millers Falls No. 12..... " 2 10
Hand.
Goodell's Automatic.
Nos..... 01 03 3 20
Per doz.. $7.75 $12 50 $12.50 $11.00
Goodell's Single Gear. per doz. 15 75
Millers' Falls " " " 12 75
" " Double " " 15 25
Reciprocating.
Goodell's.....per doz. 16 50
Bit Stock.
Standard List.. 60&5% @60% @10

DRIVERS, SCREW.

Standard.....65&10%
Lock Ferrule.....60%
Champion.....40&10%
Champion Pattern.....70%
Clark's Interchangeable.....30%
Edison.....60%
Reed's Lightning.....45&5%
Goodell's Spiral.....50, 10, 5&2½%
Yankee Ratchet 50%
" " Spiral.....50&10%
Smith & Hemenway Co.....40&5%

EAVES TROUGH, GALVANIZED.

Terms, 2% for cash. Factory shipments generally delivered.

See also conducter pipe and elbows.

EGG BEATERS—See Beaters.

ELBOWS.

Adjustable Stove.
Inches..... 5 6 7
Smooth, per doz...$0.75 $0.85 $1.20
Plan'd, " 1.80 2.00 2.65
Corrugated Conductor.
Discount.....75&10%
Corrugated Stove.
Inches..... 5 6 7
Smooth, per doz..$0.85 $1.00 $1.50
Pol'd, " .. 1.40 1.65 2.25
Plan'd, " .. 2.15 2.65 3.40
Four-Piece Stove.
Inches..... 5 6 7
Smooth, per doz..$0.60 $0.65 $0.95
Planished, " .. 1.40 1.70 2.30

EMERY CLOTH—See Cloth.

EMERY TURKISH.

Size .....5-lb. pkgs. ½ kegs. kegs.
No 00 to 150, per lb.. 6c 4c 4c
Flour..... " ... 5c 3c 3c

ENAMEL, IRON.

A-B Iron Enamel, 3 doz. case, ...per gro., 15 00
Peerless..... 1 25

EXTRACTORS, PIG.

See Forceps, Pig

EYES.

Bright Wire Screw—See Goods, B. W.
Drifting Pick.....60, 10&5%
Hooks and—
Brass.....50&10%
Iron.....70%

FASTENERS, STORM SASH.

Schroeder's.....per doz. $0.85
Sensible..... " 1 15

FAUCETS—See Cocks.

FILES AND RASPS.

Delta.....70&10%
Kearney & Foot.....75&10%

FLUE STOPPERS—See Stoppers.

FORCEPS, PIG.

Superio .....per doz. $4 75
Whisson's Imp..... " 5 25

FORKS.

These goods are sold net this year.
Barley.
Steel New List.....65&10%
Wood, 4-tines, per doz.....$5 00
Coal, Coke, Cottonseed.....30%
Hay.
2-tine.....60%
3 " .....60&5%
4 " .....60&10%
Digging.....65&5%
Scoop.....30%
Header.
3-tine.....60&5%
4 " .....60&5%
Manure.
4-tine 60%
Ore.....40%
Spading.

FRAMES.

Hack Saw.
Union.....per doz. $5 75
Jenning's adj..... " 7 50
Cast..... " 2 50

FREEZERS, ICE CREAM.

Arctic.
Qts..... 1 2 3 4 6
Each...$1.10 1.30 1.50 1.80 2 30
Qts..... 8 10 12 15
Each.....$2.95 3.80 4.50 5.20

GAUGES

Butt and Rabbet.
Cream Pail.
Fairmont.....per doz. $3 75
Marking, Mortise, etc.....
.....50&10%
Saw.
Wire.
Disston's.....25%

GIMLETS.

Discount.....35@40%

GLASS, WINDOW.

Single..... 90&20%
Double.....90&25%

GLASSES, LEVEL

GLUE.

Bulk.
B Amber.....per lb. 12 c
A White..... " 15 c
H. S. Amber..... " 16½c
Liquid.
Army & Navy.....40%
Le Page's—
List "A".....37½%
List "B".....33⅓%
List "C".....25%

GOODS.

Bright Wire.....90%

GREASE, AXLE.

Wood Boxes.
Diamond.....per gro. $5 50
Frazer's..... 9 50
Hub Lightning..... 5 25
Paragon..... 6 75
Wood Pails.
Frazer's, 15 lb. 80c; 25 lb. $1.30 each.
Hub Lightning, 15 lb. 55c; 25 lb. 70c each.
Tin Cans.
Chamellene Graphite.
1 lb. per gross.....$9 50
3 lb. per gross.....25 00
5 lb. per gross.....37 00

GRIDDLES.

Soapstone.....33⅓%

GRINDSTONES.

Family.
Inches..... 7 8 9
Per doz.....$8.25 9.00 10.50
Loose.
Per ton.....$20 00@$21 00
Mounted.
Ball Bearing..... 1 2 3
Each.....$3.15 3.00 2.85
Common Bearing 1 2 3
Each.....$3.00 2.80 2.65

GUN WADS
(See Ammunition.)

HAFTS, AWL.

Brad.
Common.....per doz. $0 19
Peg.
Common..... " 22
Patent, plain top..... " 47
Patent, leather top... " 52
Sewing.
Common..... " 22
Patent..... " 52

HALTERS.

Jute Rope.....per doz. $1 10
Sisal Rope..... " 1 85
Web..... " 2 00
Leather, rope tie..... " 8 50
Leather, leather tie..... " 11 50

HAMMERS, HANDLED.

Blacksmiths' Hand.
Plumbs.....60&5%
Engineers'.
Plumbs.....60&5%
Farriers'.
Plumbs.....40&10%
Machinists'.
Plumbs.....60&5%
Nail.
Plumbs.....40&7½%
Quaker City.....per doz. $3 50
Cast..... " 1 15
Maydele's.....30&5%
Riveting.
Plumbs.....40&12½%
Shoe.
Cast.....per doz. $0 75
Tack.
All Iron.....per doz. $0 35
Pol'd Iron, Hickory hdl. " 50
Mall. Iron, Inlaid..... " 1 55
Magnetic..... 1 2 3
Per doz.....$0.70 .80 1.00
Magazine.. .....per doz. 4 75

HAMMERS, HEAVY.

Heavy Hammers and Sledges.
Under 5 lbs .....60&5%
5 lbs. and over.....60&10%
Masons'.
Single and Double Face.....50&5%

HANDLES.

Auger.
Common Assorted....per doz. $0 38
Peck's Adjustable.... " 2 10
Ives' Adjustable.....per set, 1 35
Axe.....60%
Chisel.
Hickory, Tanged Firmer, Assorted, 33c; Large, 38c per doz.
Hickory, Socket Firmer, Assorted, 27c; Large, 30c per doz.
Applewood, Tanged, Firmer, Assorted, 29c; Large, 38c per doz.
Applewood, Socket, Firmer, Assorted .....per doz $0 24
Coal Pick.....50&10%
Drift ng Pick.....50&10%
File, assorted, 13c; Large, 16c per doz.
Hammer.
Adze Eye.....per doz. $0 40
Blacksmiths'..... " 40c@70c
Machinists'..... " 45c@70c
Hatchet..... " 40
Hay and Manure Fork.....30%
Hoe and Rake.....30%
Plain.....per doz. $0 75
Varnished..... " 80
Screw Driver.
Assorted..... " 37
Large..... " 48
Shovel and Spade.....33⅓%

HANGERS.

Barn Door.
Nansen.....60&10%
Matchless.....70&10%
Storm King.....60%
World's Best.....50%
Wagner's Adjustable.....70&10%
Warehouse.....60%
Conductor P.
Griffin.....70&10%
Iwan's Perfection.....50%
Eaw Trough.
Baker's.....per gro. $2 35
Imperial.....20%
Wire.....33⅓%
Parlor Door.
Acme.....per set, $3 75
Ives' Improved..... " 2 50
Lane's Standard..... " 3 50
Lane's New Model.... " 3 10
Le Roy Noiseless..... " 4 00
Richards'.....40-10&5%

HASPS.

Hinge, Wrought.....40%
With Staples—See Staples.

HATCHETS.

Crown.....60-10&5%
Cast Claw.....per doz. $1 10@1 55
Cast Shingling.... " $0 85@1 10
Germantown.....30%

HAY KNIVES.

See Knives.

HAY RACK BRACKETS.

Wenzleman's No. 1.....per doz. $9 00
Wenzleman's No. 2..... " 9 00

HINGES.

Blind.
Clark's Gravity ... per doz. sets, 95c
Parker's.....65%
Shepherd's Noiseless, for Wood Casing.....per doz $1 05
Gate.
Clark's..... 1 2 3
Hgs & Ltch.. doz. $2.50 2.90 4.00
Hinges only... " 1.90 2.20
Latches only . " .70 .75
Knuckle.....per doz prs. $6 00
Leed's..... " sets 6 75
Superior..... " prs. 9 50
Spring.
American.....20%
Chicago.....25&5%
Columbia Dbl. Acting....40&10&5%
Gem.....25%
Ideal Detachable.....per gro. $11
Matchless.....30%
New Idea.....per gro. $5 00
Oxford.....20%
Wrought Iron
New Lists .....
McKinney
Light Strap Hinges.....60%
Heavy Strap Hinges.....65%
Light T Hinges.....55%
Heavy T Hinges.....45%
Extra Heavy T Hinges.....60%
Screw Hook and Strap.
6 to 12 in.....per 100 lbs. $3 75
14 to 20 in..... " " 3 65
22 to 36 in..... " " 3 40
Screw Hook and Eye.
½ in.....per 100 lbs. $6 75
⅝ in..... " " 7 75
¾ in..... " " 9 75

HOES

Garden .....70&10%
Grub.
Extra.....70%
Hazel.....per doz. $5 00
Ladies' and Boys'.....75%
Mortar.....75&10%
Planter's Eye.....62½%
Weed.....75&15%

HOLLOW WARE—See Ware.

HOOKS.

And Eyes.
Brass.....50&10%
Iron.....65&10%
Awning.....per gro. $1 00
Belt.
Brown's.....70&5%
Jones'.....65&5%
Bench.
See Stage, Bench.

Box.
Inch..... 6 8 10 12
Per doz.....$1.35 1.65 1.75 2.30
Humason & Beckley's..per doz. $2 50
(See Goods, Bright Wire.)
Bush.
Common Axe Handle. per doz. $7 00
Chain.
Inch..... 1/4&5/16 3/8 7/16 1/2
Per 100...$7.00-8.10 9.75 11.50 12.60
Clothes Lines.
Japanned .....per doz 22c@24c
Galvanized..... " 40c
Coat and Hat
Cast Iron .... per gro. 72c@$1 50
Gem Wire.....70%
Conductor.
Malleable.....25%
Wrought.....20%
Corn.
Common, unpolished, per doz. $1 50
Little Giant..... " 3 25
Gate.
See Goods, Bright Wire.
Grass.
Common. Nos..... 2 3 1
Per doz.....$1.50 1.60 1.70
German.....per doz. 1 75
Little Giant..... " 2 75
Hammock.
With plate.....per doz. 50
With screw..... " 45
Lambrequin, or Drapery, per gro. .21c
Picture.....50%@50&10%
Potate and Manure.....70&12½%
Screw.
Brass.....80&5%
(See Goods, Bright Wire.)
Seat Spring.....per lb. 5½c

HOOPS, TUB.

Elastic ... per case of 2 doz.... $1 50

HOSE, GARDEN.

				Coupled, per ft.
Heron, 3 ply-¾" guar. press			55 lbs.	7½c
Crane.. "	"	"	75 "	8½c
Falcon "	"	"	95 "	9½c
Eagle "	"	"	120 "	10½c
Condor "	"	"	150 "	11½c
High Test "	"	"	200 "	12½c

COTTON COV. RUBBER HOSE.

High Grade-¾"-guar. press.			400 lbs.	11½
Special "	"	"	300 "	9½c
Leader "	"	"	100 "	7½c

HUSKERS.

Boss.
Nos..... B BB E 200
Per doz.....$2.00 2.00 1.75 .80
Nos..... L PP P K
Per gro.....$5.40 6.00 6.00 10.50
Nos..... 2000 3000 O
Per gro.....$3.50 9.00 24.50
Nos..... 00 50 64 68
Per doz.....$2.15 2.15 .85 1.45
Brinkerhoff's.
Per gro.....$14 40
Clark's.
No..... 1 63 200 400
Per doz.....$0.40 .75 .75 1.75
Nos..... 200s 40s 3s 4s
Per doz..... $0.55 .50 1.25 1.25
Nos..... A AB F
Per doz.....$3.00 $4.25 $2.50

IRON.

See Metals.—First column.

IRONS.

Curling.
X.....per doz. $0 40
Y..... " 50
Z..... " 58
Jewel..... " 85
Imperial..... " 1 00
Pinking..... " 70
Plane.
Wood Bench.....20&5%
Sad.
Charcoal.....per doz.$11 00
Common, polished, per 100 lb. 4 50
Common, nickel plated, 5 25
Chinese Polishing.....per doz. 7 40
Laundry, No. 1..... " 5 75
Laundry, No. 2..... " 6 25
Mrs. Pott's.
No. 50 J, Enterprise, per set 93
No. 55 J, " " 90
No. 50 T, " " 1 00
No. 55 T, " " 96
Tailors' Sad.....per lb. 5½
Tailors' Geese..... " 5½
Tuyere.
Single Duck Nest.....per doz $5 25
Double Duck Nest .. " 6 25
Sutton.....each.... 2 60

JACKS.

Locomotive.....70%
Wagon.
Oliver,
Nos..... 0 00
Each.....$0.60 $0.80
Standard.
Nos..... 1 2
Each.....$0.60 1.00
Wilcox.
Nos..... 1 2 3
Each..... $0.85 1.20 2.90

KETTLES.

Brass.....15%
Cauldron.....40&5%
Copper..... per lb., 27c
Maslin.....65%
Sugar.....50%

KNIVES.

Boot Topping.
Clyde, 9-in. Scimiter Blade, doz.$3 85
California..... 3 40
Cooper's Hoop.....15%
Corn.
Clipper.....per doz. $1 75
Disston's..... " 2 75
Earle's..... " 3 00
Woodford..... " 2 25
Drawing.
Standard.....70%
Adjustable.....15%
Barton's Carpenters' 10%
Folding Handle.....25&5%
Hay.
American, Sickle Edge...doz. $10 50
Canton, Sickle Edge..... " 8 25
Heath's..... " 8 00
Iwan's, Sickle Edge..... " 9 50
Iwan's, Impv'd Serrated . " 10 00
Lightn'g, Holt's Genuine. " 6 50
Lightning Pattern..... " 6 00
Wadsworth's Sp'r Point.. " 8 50
Hedge.
Challenge.....per doz. $6 00
Disston's..... " 3 75
Mincing.
Common, Single..... " 40
Common, Double..... " 50
Streeter, 4-Blade..... " 1 30
Streeter, 6-Blade..... " 2 00
Putty.
Common.....per doz. $0 60@1 00
Lander's..... " 1 40@1 75
Scraping.
Beech Handle..... 75@1 00
Lander's..... 5 25@6 00

KNOBS.

Door.
Mineral.....per doz. $0 80
Porcelain..... " 90
Jet..... " 90

LADDERS.

Common Long.
Per ft.....9c@14c
Extension.
Per ft.....14c
Step.
Common, per ft.....7½c
Common, with Shelf, add 10c.
Keystone.....15c
Triumph, per ft.....20c

LANTERNS.

Bull's Eye Police.
3 -in. Flash Light....per doz. $6 00
2½-in. Regular..... " 4 90
3 -in. Regular..... " 5 50
Tubular.
Dietz & Hanes' . . ..net prices.

LEADERS, CATTLE.

Nos..... 1 2 3
Per doz..... $0 55 .70 2.75

LEATHER, LACE.

Cut.....33⅓%
Sides.
Ex. Quality ..... per sq. ft., 27

LEATHERS, PUMP.

Valve and Plunger.....10%

LIFTERS.

Stove Cover.
Coppered.....per gro. 1 75@3 65
Ideal..... " 5 50
Alaska, Coppered " 4 00
Alaska, Nickeled. " 5 00
Transom.
Payson's.....80%

LINES.

Chalk.
Twisted in 20-ft. hanks.
Nos.... 4 6 7 8 9
Gross...$1.50 2 00 2 25 2 50 3 00
Twisted in 50-ft. balls.
Nos..... 1 2 3 4
Per doz.....25c 30c 35c 41c
Braided in 20-ft. hanks.
Nos..... 0 1 2 3
Per doz.....22c 25c 31c 35c
Manzons', in 100-ft. hanks...doz. 80c
Clothes.
60-ft. Jute.....per doz $0 95
72-ft. Jute..... " 1 15
60-ft. Sisal..... " 1 40
72-ft. Sisal..... " 2 15
50-ft. Cotton..... " 1 15
50-ft. Braided Cotton. " 25

LINING, STOVE.

In Bricks .....per crate. 42c

MACHINES.

		Without Augers	With Augers
Boring.			
Angular.....per doz.		3 00	4 40
Upright..... "		2 60	4 00
Leather Riveting.			
Chicago, Pomeroy....per doz.		$9 00	
Excelsior.....	"	2 00	
Handy.....	"	2 00	
Little Giant.....	"	3 00	
Pony, Pomeroy.....	"	7 20	
Washing.			
Winner.....per doz.		54 00	
Keystone.....	"	54 00	
U. S. Steel.....	"	60 00	
Advance, f.o.b.Chicago	"	24 50	

MAIL BOXES.

See Boxes.

MALLETS.

Carpenters'.
Fibre Head, Small....per doz. $5 00
" " Medium. " 5 75
" " Large... " 7 00
Round Hickory..... " 2 25
" Lignumvitæ... " 4 00
Square Hickory..... " 2 25
" Lignumvitæ... " 4 50
Tinners'.
Applewood..... " 1 70
Hickory..... " 1.00@1 50
Hickory Sheet Iron... " 1 50

MATS

Door.
National Rigid.....50, 10&5%
Acme Steel Flexible.....33⅓%
Stove.
No. 2.....per gro. $3 25
No. 1..... " 3 50
No. 1 Asbestos Toasters, or wire-covered Stove Mats, with handle.....per doz. 1 10
No. 2 Asbestos Toasters, with ring.....per doz. 60

MATTOCKS.

Plumbs.....65&10%
Extra.....60%

MAULS.

Iron, lbs.....	10	13	16	18
Per doz....	$4.00	4.50	5.25	5.60
Wood face, lbs.....	10	12	14	
Per doz.....	$5.00	5.50	6.00	

Wood Choppers'.
Lake Super'r & Oregon Pat. 75&10%

MEASURES.

	½ pk.	1 pk.	bu.
Galvanized, per doz.	$2.25	3.00	3.85
Japanned.. "	1.75	2.45	3.15

MICA.

First Quality.....20%
Second Quality.....25%

MILLS, COFFEE.

Enterprise.....25%
Parker.....40-12½&2½%
Arcade.....40-12½&2½%

MITRE BOXES.

See Boxes.

MOPS.

Erie.....per doz. $3 15
Handled Cotton.
Pounds..... ¾ 1 1¼ 2
Per dozen....$2.00 2.35 2.65 3.25

MOWERS, LAWN.

Gladiator—B. B.
Inches..... 16 18 20
Each..... 6.50 7.25 8.00
King Universal—B. B.
Each..... 5.25 5.75 6.00
Inches..... 14 16 18
Big Giant..... 3.50 3.90 4.25
Little Giant..... 2.50 2.65 2.75
Philadelphia.
All Styles, except A & E, 60, 10&10%
Style A.....50&10%
Style E, High Wheel....60, 10&10%
Drexels.....40%
All Day .....Net Price

NAILS.

Cut Steel .....rates, $2 50
Cut Iron..... 2 60
Wire.
Small Lots..... $2 40
Carload Lots..... 2 35
Cement Coated..... 2 30
Horse Shoe.
Ausable.....55&5%
Capewell.....15%
Perfect.....55&5%
Putnam.....20&5%
Star.....35&5%
Clover Leaf ..... per lb., net, 10½c
Picture.
Brass Heads.....25%
Brads.....85%
Furniture.....15%

NAIL PULLERS.

See Pullers.

NAIL SETS.

See Sets.

NETTING, POULTRY.

Galvanized beforeweaving .50,10&2½%
Galvanized after weaving.....80&7½%
Cut Pieces.....65&5%

NIPPERS.

End Cutting.
Stubb's Pattern. Inches 5½ 6
Per dozen..... $4.00 4.25
End and Diagonal Cutting.
Swedish Side.....75%
Utica Drop Forge & Tool Co....60%
Hoof.
Heller's.....40&10%
V. & B.....55&5%

NOZZLES.

Hose.
Genuine Gem.....per doz. $3 90
Magic..... " 3 60
Mystic..... " 3 00

NUTS, HOT PRESSED.

Square Blank.
In ½ 9/16 ⅝ 11/16 ¾ ⅞
lb 9½c 8c 6½c 5½c 5½c 5c 4½c
Square Tapped.
In. ½ 9/16 ⅝ 11/16 ¾ ⅞ 1
lb. 12½c 10½c 8c 7½c 6½c 6½c 6c
For 5-lb. boxes add ½c per lb. to above prices.

OILERS.

Chase Pattern.
Brass and Copper.....60%
Zinc.....60%
Engineers'.
Cannon.....55%
Tin .....per doz. $2 00@$2 25
Machine.
Common.....per doz. $0 56
Copper Plated Steel... " 1 00
Malleable Iron.....60, 10&5%
Japanned.....65@75c

OPENERS.

Box.
Inches..... 10 12 14
Flat.....per doz. $2.85 3.60 4.15
Round.... " 2.10 2.25 2.75
Can.
Delmonico .....per doz $1 30
Never Slip..... " 65
Crate.
V. & B..... " 5 75

OUTFITS, COBBLING.

Combination.....per doz. 11 00
Economy..... " 4 65
Family..... " 9 75

PADLOCKS.

Standard Wrought.....75&5%
Champion.....50%
Eureka.....40, 10&5%
Yale.....60&5%

PAILS.

Cream.
14-qt , without gauge, per doz. $2 50
20-qt., " " " 3 00
20-qt., with gauge.... " 3 50
Sap.
10-qt., Galvanized, per 100....$13 00
12-qt., " " 14 50
14-qt., " " 16 25
16-qt., " " 17 75
10-qt.,IC Tin..... " 10 25
12-qt., " .... " 11 75
14-qt., " .... " 13 00
10-qt.,IX Tin.... " 12 75
12-qt., " .... " 16 00
14-qt., " .... " 17 00
Stock.
Galv'd, qts. 14 16 18 20
Per doz..... $3.75 4.00 4.75 5.25
Water.
Galvanized... qts. 10 12 14
Per doz..... $1.95 2.20 2.45
Wood.
Cable, 2-Hoop.....per doz. $1 70
Cable, 3-Hoop..... " 1 90
Cedar, 3-Hoop..... " 2 85
Standard, 2-Hoop.... " 1 60
Standard, 3-Hoop.... " 1 80

PANS

Dripping.....60&5%
Fry
Common .....75&10%
Acme 70%
Roasting.
Paxton,
Nos..... 1 2 3 4
Per doz.... $4.75 5.75 6.50 7.50
Neverburn .. 4.00 4.50 5.50 6.00
Savory, No. 200.....per doz. $5.00

PAPER.

Building.
Plain.....per 100 lbs. $1 25
Tarred..... " 1 35
Tarred Felt..... " 1 65
No. 20, Red Rosin....per roll, 40
No. 30, Red Rosin.... " 55
Sand and Emery.
Star ..... low list, 50%
B. & A.....50%
Wrapping.
Drab Fiber.....per lb. $0 06
Rag..... " 0 00

PARERS.

Apple.
Bay State.....per doz. $13 00
Turntable..... " 0 00
White Mountain..... " 5 00
Reading..... " 7 00
Potato.
Goodsell's Saratoga, 10½ in., doz. 6 50
Goodsell's Saratoga, 5 in., doz. 5 50

PICKS.

Adze Eye Ore.....70%
Drifting and Poll Picks.....70%
Plumbs, Railroad.....70%
Surface.....70%

PINCERS.

Carpenters', cast steel,

Inches.....	6	8	10	12
Per doz.....	$2.00	2.60	2.95	3.75

Blacksmiths'.....45%
Heller's.....40%

PINS.

Clothes.
Common.....per box of 5 gro $0 52
Hoyt's..... " " 31
U. S..... " " 70
Picket.
Fluted, 15-in.....per doz. $0 70
Fluted, 21-in..... " 1 60
Spiral..... " 1 90

PIPE.

Conductor.

	Gal. Steel	Charcoal
L. C. L. to Dealers:—		
Eastern	70&10%	50&10&2½%
Pittsburgh	75&10&5%	60%
Central	75&10%	60%
Northwestern	75&7½%	60%
Western	70&12½%	50&12½%
Tennessee	70&10%	50&12½%
Southern	70%	50&12½%
Southwestern	70%	50&5%

Terms 60 days; 2% Cash 10 days.
Factory shipments generally delivered.

Lead.
Full coils.....per lb. 7½c
Cut coils..... " 7½c
Stove

Acme—Inches....	5	6	7
Smooth, per jt...	8½c	9½c	10½c
Planished, "	32 c	33 c	43 c
Peerless—Smooth,	7½c	8 c	9½c
Polished.....	14½c	15½c	18 c
Planished.....	28 c	31 c	35½c
Made-up—Inches..	5	6	7
Smooth.....	7½c	8 c	9½c

7 to 6 in. Smooth Tapers, pr jt...13c
6 in. Smooth T's..... " 27c
7 to 6 in. Planished Tapers.....45c

Yale Patent Lock Pipe—Stove.

Blue Steel:	5"	6"	7"	7" to 6"
	Cents			
Battle Axe Blue....	7	7½	9½	10½
Can't Slip " ..	7½	8½	10	11
Peerless " ..	7½	8½	10	11
Duplex " ..	10	11	13	14
Yale, Rus. Fin....	15	16	17	18
Duplex Planished.	29	31	37	38
Galvano, Gal.....	15	16	17	18

If wanted made up, add per joint or grooved, 1c; riveted, 1½c. Crating made-up pipe extra.

Wrought Iron Gas Pipe.
⅛@¼-in., black.....discount, 60%
⅛@¼-in., black..... " 60,10&5%
⅜-in. to 6-in., black... " 70%
7-in. to 12-in., black... " 62½%
⅛@¼-in., galvanized.... " 42%
⅛@¼-in., galvanized.... " 50%
⅜-in. to 6-in., galvan'd " 57½%
7-in. to 12-in., galvan'd " 45%

PLANES.

Sargent Iron Bench.....60%
Stanley Iron Bench.....25&5%

PLATES, TIN.

See Metals in Column 1.

PLIERS.

Button's—Ins.. 4½ 6 8 10
Per doz..... $2.75 3.35 4.15 5.15
Button's Pattern.

Inches.....	4½	6	8	10
Per doz.....	$2.25	2.75	3.25	4.25

Cutting.
Bernard's.....30%
Lodi.....50%
End and Diagonal Cutting
Swedish Side.....70%
Utica Drop Forge & Tool Co....50%
Fencing.
Farmers' Choice.....per doz. $8 00
Russell's..... " 8 25
Flat and Round Nose.
Bernard's.....30%
German.....65%
Lodi.....50%
Paragon.....50%
Gas.—Inches.. 7 8 10 12
Per doz..... $3.00 3.50 4.50 5.50

Tinners'.
Hollow.....40%
Solid.....each, 5½c

PLUMBS AND LEVELS

Common.....60&10&10%
Cook's.....40%
Davis' Iron.....25%
Davis' Inclinometer.....15%

POINTS

Drive Well Points.....75&5%

POKERS, STOVE.

Wr't Steel, str't or bent, per doz. $0 55
Wr't Steel, wood hand'ls " 80
Nickel Plated, coil hand'ls " 65

POKES, ANIMAL.

Cracker Jack, wr't steel, per doz. $4 50

POLISH.

Metal.
A-B Oil Metal Polish, 4-oz. bottles, 3 doz. case, per gr. $9 00
1-gal. can..... 90
White Silk, half pints, per doz. $2 00
White Silk, 6-oz. cans, per doz. 1 00
Shoe.
M. C. D.....per doz.....38c@50c
F. C. O..... " 40c
T M..... " .55c@$1 75
Imperial.....per gro..... 5 00
Stove.
A-B Polishes.
Liquid Stove Polish.
3 doz. in case.....$2 25
6 " " .....gr., 9 00
Fireproof Stove Polish, 3 and 6 doz. in case.....gr., 12 00
Liquid Waterproof Stove Polish, 10-oz. cans, per gro., 12 00
Oil Paste Polish.
6-oz. cans, 3 doz. case..... 2 25
1-lb. " 3 " " 3 75
5-lb. " per can..... 50
Dry Powdered Stove Polish.
5-lb. box..... 75
100-lb. bbls.....per lb. 12
Powder Polish. 3 doz. 6 do. 12 doz.
$2 25 $4.50 $9 00
Water Paste Stove Polish, ½-lb. boxes, 3 doz. case..per gro., 12 00
Black Eagle, 1-lb. cans, pr gr, $15 00
Black Silk—
5-lb. pail..... $0 70
Paste, 5-oz. cans....per doz. 75
Paste, ½-lb. cans.... " 1 05
Liquid, ½-pt. cans... " 1 05
Liquid, 6-oz. cans... " 75
Black Jack, ½-lb. cans, " 9 25
Dixon's Carb. of Iron. " 5 75
Nickel Plate..... " 4 50

POPPERS, CORN.

Round or Square, 1-qt. per doz. $1 05
Square, 1½-qt..... " 1 15
Square, 2-qt..... " 1 30
4-qt..... " 3 75

POTS, FIRE.

Clayton & Lambert's, each, $4 75@6 25
Gate City.....each, 6 25
Gem.....each, $6 75@8 50

POWDER.

See Ammunition.

PRESSES, FRUIT AND JELLY.

Enterprise Manufacturing Co.....25%

PRIMERS

See Ammunition.

PRUNERS.

Disston's Pole.....per doz. $6 50
Henry's Improved..... " 75&10%
Water's Improved..... " 80%

PULLERS.

Cork.
Daisy.....each, $3 10
Phœnix..... " 1 40
Quick and Easy..... " 2 70
Nail.
Giant.....per doz. 10 50
Giant Pattern..... " 6 00
Jumbo..... " 9 00
Tack—Giant..... " 40

PULLEYS.

Awning—Jap'd.....60%
Clothes Line.....50&10%
Hay Fork.
Iron Wheel, 5-in.....per doz. $1 75
Wood Wheel, 6-in.... " 1 75
Wood Wheel, 6-in., pass knot, ...per doz. 2 15
Hot House—Jap'd.....50&10%
Screw—Jap'd.....60%
Side—Jap'd.....50&10%
Sash.
Common.....per doz. $0 20
Common-Sense, 2-in.. " 20
Empire Pattern, 2-in.. " 20
Ideal..... " 20
Steel..... " 25

PUMPS.

Pitcher Spout.

Nos.....	1	2	3	4
Each.....	$1.00	1.15	1.30	1.70

Spray.
Blizzard.....per doz. $14 50
Cyclone, tin..... " 3 40
Cyclone, copper..... " 6 75
Daisy..... " 9 00
Little Giant.....each,... 2 25

PUNCHES.

Conductors'.
No 22.....per doz $2 25
Machine.....per lb 19
Saddlers'.
Common.....per doz 60c@70c
Good..... " 72c@84c

PUTTY.

In Bladders.
Strictly pure.....per 100 lbs. 2 35

RAIL.

Barn Door.
Matchless, 1-in..... 7 c
Matchless, 1¼-in..... 3½c
Storm King..... 4 c
Sliding Door.
Painted steel.....per ft. 4½c
Bronzed wrought iron...per ft. 5½c

RAKES.

Coal or Wood.....per doz. $5 20
Garden.
Steel.....70%
Steel, bow.....70%
Malleable iron, heavy.....60&10%
Hay.
Wood.....$1 50@$2 00
Lawn—Wood.
XXX.....per doz. $3 00
Automatic..... " 5 25
Lawn Queen..... " 2 75
Jumbo, 36 teeth..... " 5 25

RASPS—See Files.

RAZORS.

Bo-ras-ic.....50%
Red Devil.....50%
Tree Brand.....50%

REGISTERS.

List December 5, 1904.
Black and White Japanned, Reg. and Border.....70&10%
On Face.....75&10%

RINGS.

Bull.
Copper.....2½ in. 3in.
Per doz.....$1 10 $1 40
Rea's Improved Self-Piercing copper, pr doz 2 00 ....
Steel, per doz..... 85 95
Nickel plated..... 1 35 ....
and Ringers—Hog.
Blair's Rings.....per doz. $0 58
Blair's Ringers..... " 75
Brown's Rings..... 50
Brown's Ringers..... " 80
Champion Ringers.... " 1 60
Hill's Ringers..... " 70
Hill's Ring, boxes.... " 47
Major Rings..... " 60
Perfect Ringers..... " 95
Wolverine Rings..... " 1 40
Wolverine Ringers.... " 80
Fruit Jar.
White.....per lb.....30c
Key.
Split, round.....per doz. $0 17
Split, square..... " 32
Ball, round..... " 32

RIVETS.

and Burrs.
Copper Belt.....40%
Coppered Iron.....60&10&5%
Tinners'.....60&10%
Hame.....per lb. $0 10
Slotted Clinch per doz 40c@45c
Tubular
Nos 1 and 2 assorted sizes, doz, 45c

RIVET SETS

See Sets.

ROPE.

Cotton.
¼, 5-16 in. Com on reels. .per lb. 11½c
¼, 5-16 in Com. in coils. . " 12 c
¼, 5-16 Imperial in coils.. " 21 c
Sisal.
1st Quality.....12 c
Hardware Grade, rates, per lb...10 c
Pure Manila.
1st quality.....per lb. 15½c
Hardware Grade, rates... " 14½c

RULES.

Boxwood.....50&10%
Ivory.....

SASH WEIGHTS.

See Weights.

SAWS.

Back.
Disston's.....25%
Jackson's.....25%
Butchers'.
Disston's.....30%
Circular.
Disston's.....50%
Hiles'.....50&10%
Compass.
Common.....per doz $1 35@1 60
Disston's.....%25
Cross-Cut
Disston's.....45%
Dehorning.
Disston's.....per doz. $5 75
Hack.
Disston's.....25%
Keystone.....30%
Hand and Rip.
Brown's.....30%
Disston's No. 7.....30%
Disston's Nos. 8, D8, 12, 76, 112, D100, and 120 (new list).....25%
Keystone.....30%
Enterprize, hand.....per doz. $5 00
Our Saw, hand..... " 4 00
Our Saw, rip..... " 4 50
Keyhole—Disston's.....25%
Kitchen.
Sterling.....25%
One Man.....50%
Panel
Brown's.....30%
Disston's No. 7.....30%
Disston's No. D100.....25%
Pruning.
Brown's.....25%
Disston's.....25%
Wood
Common.....per doz. $4 50
Clover Leaf..... " 6 00

SAW BUCKS—See Bucks.

SAW SETS—See Sets.

SAW TOOLS—See Tools

AW FRAMES.

Common, plain.....per doz. $1 33
Common, painted..... " 1 70

SCALES.

Counter.
Pelouze.....40&10%
Platform.
Osgood.....50%

SCOOPS.

Grain.
½-bu. "Hercules".....per doz. 13 70
1-bu. "Hercules"..... " 15 00

SCRAPERS.

Box.
Triangular.....per doz. $4 00
Cabinet.
Cast Steel.....per doz., 60c@75c
Road.

Cubic ft.	7	5	3
Without run's, ea.	$4.00	3.75	3.50
With runners, ea..	4.25	4.00	3.75

SCREWS.

Bench.

Iron, in.....	1	1½	1¾
	$3.50	4.00	4.75

Wood, white maple...per doz. $3 50
Hand—Wood.....10%
Hand Rail.....30&10%
Jack.....70&10&5%
Lag or Coach—all sizes, gimlet pointed.....75&5%
Saw—Centennial

Nos..	1	2	3	4	5	6
Per doz.	18c	20c	26c	30c	23c	25c

Wood.
F. H. Bright.....87½&5%
R H Blued.....65%
F. H. Jap'd.....83½%
F. H. Brass.....85%
R. H. Brass.....80%
R. H. Nickel Plated.....75-10%

SCYTHES.

Be Ve Be, grass.....per doz. $8 50
Clipper, grass..... " 8 00
Clover Leaf Dutchman. " 8 00
Honest Dutchman..... " 8 00
Be Ve Be..... " 8 00

SHAVING SETS.

Smith & Hemenway.....60%

SETS.

Nail.
Round, common.....per doz $0 33
Square, common..... " 42
Octagon, common.... " 32
No. 5, square..... " 77
Cup point, knurled... " 7
Rivet.
Farmers'.....per doz. $1 2
Tinners'.....50&10%
Saw.
Aiken's Pattern.....per doz $3 50
Common Lever..... " 1 20
Disston's Monarch.... " 6 50
Disston's X Cut ..... " 12 00
German..... " 1 05
Morrill's Old Style.... " 5 00
Morrill's Pattern..... " 3 25
Leach's..... " .80
Nash's Hand..... " 3 15
Nash's X Cut..... " 4 20
Stillman's Lever..... " 1 30
Stillman's X Cut..... " 2 50

SHARPENERS, SKATE.

Diamond..... per doz $1 60
Smith & Hemenway 20%

SHAVES, SPOKE

Iron.....per doz $1 10@1 85
Wood ..... " 2 75@4 75
Bailey's .....50&5%
Goodell's 15%

SHEARS

Pruning
Buckeye, No. 1.....per doz $5 75
Buckeye, No. 2..... " 7 40
California Pat., 9-in.. " 3 20
Cailfornia Pat., 10-in.. " 4 00
Draw Cut, No. 3..... " 13 75
Draw Cut, No. 4..... " 16 50
Henry's Pat. 0 01 14 012
Per doz.....$1.40 2.10 2.90 2.80
Star.....per doz $4 00
Sheep—No BBA.
Inches..... 6 6½ 7
Reg. Grip.....$11.25 11.50 12.00
Nar. Grip.,doz.... 11.00 11.25 12.25
Tinners'—See Snips.

SHEAVES, SLIDING DOOR.

Common.
Inches..... 3 4 5
Per set..... $0.34 .42 .70
Hatfield's.
Per set..... $0.75 1.00 1.60

SHELLS—See Ammunition.

SHELLERS, CORN.

Union.....per doz. $6 75

SHIELDS.

Expansion Bolt Shields.....50&10%

SHOES.

Conductor.....60&10%

SHOE POLISH—See Polish.

SHOT—See Ammunition.

SHOVELS AND SPADES.

Coal.
No 2 Woodford.....per doz. $5 50
No. 182..... " 6 00
Ames' new list .....Discount, 12½%
Per doz.
Neverbreak, hollow bck, blk. $15 75
National.... " " " 14 75
Buckeye.... " " " 10 00
Mohawk.... " " " 9 00
Drain.
Iwan's Perfection.....50%
Railroad, etc.
Black Diamond.....per doz. $1 50
Crescent..... " 5 75
Keystone..... " 8 75
Star..... " 4 75
Vaterland..... " 9 50
Hollow Back..... " 4 75
Ames, new list.....Discount, 12½%
Snow.
Per doz.....$1.65@$9.00
Alaska Steel.
D Handle.....per doz. $3 50
Long Handle..... " 3 00

SINKS.

Cast Iron.
Painted.....50&10%
Enameled, White.....50&10%
Wrought Steel.
Painted, new list.....40-10&5%

SLEDGES—See Hammers.

SNAPS, HARNESS.

Champion.....33⅓%
German Pattern.....30&5%
Judd's Pattern.....50%

SNATHS.

Double Ring, Bush.....per doz. $6 00
Patent Loop, Bush..... " 5 75
Patent Loop, Grass..... " 5 50

SNIPS, TINNERS'.

Clover Leaf.....40&10%
National.....40&10%

SOLDER—See Metals.

SPRINGS, DOOR.

Perfect.
Nos..... 1 2 3 4
Per doz.....30c 35c 40c 54c
Reliance.
Per doz ... light, $1.25; heavy, $2 50
Star.
Per doz ... light, 90c; heavy, $1 35
Torrey's.....per doz. $1 35
Warner's No..... 11 13
Per doz..... 75c $1 35

SQUARES.

Steel and Iron.....70&10%
(Add for bluing, $2.50 per doz., net.)
Mitre.
Try.
Try and Bevel.
Try and Miter.
Fox's.....per doz. $5 75
Winterbottom's.....70%

SQUEEZERS, LEMON.

Common Wood.....per doz. $0 70
Porcelain Lined, Wood.. " 1 25
Boss, malleable iron.... " 1 20
Iron Frame, porc'n bowl " 1 90
Iron Frame, glass bowl . " 2 35
Little Giant, tin'd iron . " 4 00
Drum, japanned..... " 3 60
Drum, nickel plated ... " 4 50

STAPLES

Blind.
Barbed.....per lb . . 9½@9¾c
Butter Tub..... " .....8 @8½c
Fence—less than carload.
Polished.....per 100 lbs. $2 30
Galvanized..... " 2 60
Netting.
Galvanized.....per 100 lbs. 4 00
Wrought.
Wrought Staples, Hasps and Staples, Hasps, Hooks and Staples, and Hooks and Staples.....80-10&10%
Extra heavy.....75&10%

STEELYARD.

Discount 25%.

STONES.

Axe.
Hindostan.....per lb 5½@7 c
More Grit..... " 9½c
Washita ..... " 17 c
Emery.....60% @60&5%
Oil—Mounted.
Arkansas Hard.....per doz.$23 00
Arkansas Soft..... " 15 50
Hindostan .....per lb 6½@6¾
Oil—Unmounted.
Arkansas Hard.....per lb $2 05
Arkansas Soft ..... " 1 10
Lily White..... " 45
Queer Creek..... " 15
Ouachita..... " 38
Washita..... " 28
Sythe.
Black Diamond.....per gro. $8 00
Crescent..... " 4 25
Gem Corundum..... " 7 50
Green Mountain..... " 4 50
La Moille ..... " 7 00
Quinnebog..... " 5 00
Red End ..... " 3 75

STOPS, BENCH.

Hotchkiss'.....per doz. $3 50
Stearns'..... " 4 75

STOPPERS, FLUE.

Common.....per doz. $0 40
Crown..... " 45
Gem, flat, painted..... " 85
Gem, cor'd, decorated... " 70
Kirch's..... " 00
Perfect..... " 70@85
Skinner's Common Sense " 80

STOVE PIPE—See Pipe.

STOVE BOARDS—See Boards

STOVE POLISH—See Polish.

STRAPS.

Scoop.....per doz prs., $1 85
Skate..... " " 00@70c

STRETCHERS.

Carpet.
Bullard's.....per doz. $3 90
Excelsior..... " 5 25
Malleable Iron..... " 70
Perfection..... " 6 30
King..... " 4 50
Wire.
N. S. Elwood's.....per doz. $6 00
O. S. Elwood's..... " 6 00
Little Giant..... " 5 75
Safety..... " 10 00
Star Lever..... " 6 25
Canton Tackle Block. " 9 50
Warner's ..... " 6 25

SWIVELS.

Malleable Iron.....per lb. $0 70
Wrought Steel.....per gro. 4 50

TACKS.

American Cut.....90&15%
American Wire.....85&20%
Bill Posters Cut.....90&20%
Blued Carpet.....90&10%
Tinned Carpet.....90&10%
Gimp.....90&10%
Upholsters' Cut.....90&20%
Upholsters' Wire.....90&10%
Double Pointed.....90%
Copper.....per lb. 22c
Canvas Nails.....75&5%
Clout Nails.....75&10%
Hungarian Nails.....80%

TAPES, MEASURING.

Asses' Skin.....40&10%
Bend Leather.....20%
Patent Leather.....20%
Lufkin's Steel.....25%
Lufkin's Metallic.....50%

TEE BEVELS—See Bevels.

THERMOMETERS.

Tin Case.....per doz. 80c@$1 25
Wood Back..... " $2.00@12 00
Glass..... " 12 00

TIES.

Bale.
Single Loop.....80&5%
All other kinds.....70%
Cow—See "Chains."

TOOLS, SAW

Disston's Universal.....40%
Miniature.
Smith & Hemenway.....25%

TRAPS.

Fly.
Ballon.....per doz. $1 25
Harper's..... " 1 35
Game.
Newhouse.....40&10%
New Victor.....70&10%
Mole.
Reddick's.....per doz. $6 00
Mouse and Rat.
Wood Choker ..per doz. holes $0 13
Tin Choker..... " " 75
Delusion.....per doz. 1 15
Marty Rat..... " 6 25
Marty Rat Imitation. " 3 50
Marty Mouse..... " 3 00
Marty Mouse Imitation " 2 00
Hold-em, wire rat.... " 3 75

TROWELS

Brick.
Clover Leaf..... 30%
Brade's.....15&5%
Disston's.....30%
Rose's.....20%
Plasterers'.
Clover Leaf.....40%
Disston's.....25%
W. & McP.....25%

TRUCKS.

Bag.....each, $2 75
Handy..... " 1 85
Warehouse.....50&10%
No..... 1 2 3
Half Ironed..... $3.00 3.85 5.50
Full Ironed..... 3.45 4.50 6.45

TUBS, WASH

Standard, Wood Ex.
Nos..... " 2 1 large
Per doz.....$5.00 6.00 7.00 9.50
Dowell.
Per doz..... 5.35 6.35 7.00 9.50
Cedar.
Per doz..... 6.10 7.10 7.90 10.80
Indurated.
Per doz..... 8.55 9.45 10.80 13.50
Galvanized.
No..... 1 2 3
Per doz.....$6.00 6.75 7.75

TWINE.

Per lb.
3-ply Cotton Wrapping 25c
4 " " " 25c
" " Extra Wrapping.....27c
4 " " " Hvy. Wrapping 25c
4 " " Wrapping on tubes.....27c
3 " " " " cones.....25c
4 " " " " " 25c
India Hemp, ¼-lb. balls 19c
" " ½-lb. " 18c
" " ¼-lb. " .....dos. 75c
2-ply Jute, ½-lb. " 14c
3-ply Jute, ½-lb. " 13c
Jute Wrapping, ½-lb. balls.....14c
Jute Wool, 1-lb. balls.....9½c
Seins.
Nos..... 9 12 15
Soft.....per lb 26½ 26 25
Med..... " 26½ 26 25
Hard..... " 27 26½ 26
Staging, ½-lb. ball, size 21.....26½c
" " " " 24.....26c
" " " " 27.....26c
Bagging " " 23c
3-p y "B" in hanks 18c
4- " "B" " 18c
3 " "A", " 27c
3 " Silver Finish, in hanks...37c
Fodder or Lath.
130 strand.....6½c
200 strand.....—c

VISES.

Phœnix.....30%
Phœnix Oval Slide,
Inches..... 2½ 3 3½ 4½
Each..... $1.25 1.50 1.85 2.75
Parker's Parallel.....18&20%
Parker's Victor.....15%
Parker's Combination.....75%
Solid Box.....40&5%
Adams' Mechanics'.....each 2 50
Williamson's Universal.....60%

WARE.

Stove Hollow Ware.
Plain or Unground.....50%
Ground Ware.....45%
Enameled Ware.....33⅓%
Country Hollow Ware, per 100 lbs. $3 00
White Enameled Ware.
Maslin Kettles.....60&10%
Covered Ware.
Tin'd and Turn'd.....35&10%
Enameled.....45&10%
Glue Pots,
Tinned..... .....25%
Enameled.....30%
Enameled.
Cherry Blossom and Chrysolite..50%

WASH BOARDS—See Boards.

WASHERS.

Standard O G. cast iron . . .per lb. 2½c
Wrought iron in bulk, per lb :
In. ½ ⅝ ¾ ⅞ 1
9c 6½c 5c 4½c 4½c 4½c 3½c
Wrought steel in 5-lb. boxes, per lb.:
In. ½ ⅝ ¾ ⅞ 1 1
10c 7c 6c 5½c 5c 5c 4½c

WASHING MACHINES—See Machines.

WEDGES.

Ax.....per doz. $0 30
Galling.....per lb. 10¾
Saw..... " 8½

WEANERS.

Calf.
Puller's, per doz.....$2 00 to $2 50
Tyler's Safety, per doz 1 85 to 2 40
Carroll's, per doz..... 3 00 to 3 75
Standard, per doz..... 3 00
Hoosier, per doz..... 3 50 to 4 60

WEIGHTS.

Hitching.....per lb. 2½c
Sash—f.o.b. Chicago....pr ton, 26 50

WHEEL BARROWS.

Common Railroad.....per doz. $17 00
Heavy Railroad..... " 24 00
Panama Steel Tray.... " 39 00
Klondike Steel Tray.. " 28 00

WHEEL BARROWS.

Common Railroad.....per doz $17 00
Heavy Railroad..... " 24 00
Panama Steel Tray.... " 39 00
Klondike Steel Tray.. " 28 00

WHEELS.

Corundum.....70&10&5%
Emery.....75&5%
Well. Inches.. 8 10 12 14
Per doz..... $2.40 3.25 4.00 6.00

WIRE.

Barbed.	Painted.	Galv'd
Carloads . . per 100 lbs.	$2.33	$2.63
Less than car "	2.43	2.73

Brass.
In coils.....20%
In 1-lb. spools, new list.....50%
Broom—Tinned . . . 60&10&10&10%
Cable—Same price as Barbed Wire.
Copper.
In coils.....20&10%-33⅓%
1-lb. spools, new list.....50&10%
Fence—Smooth.
Nos. 6 to 9, An'eal'd, pr 100 lbs. $2 30
Nos. 6 to 9, Galv'd.. " 2 60
Hair—New List.....50%
Market.
Bright, full bdles.....70&5%
Bright, broken bdles.....70%
Coppered, full bdles.....70%
Coppered, broken bdles.....65&10%
Tinned, full bdles.....75&5%
Tinned, broken bdles.....65&10%
Picture—In coils . . . . 80%@80&10%
In 5-lb. spools.....per lb.....26c
Plain—Small lots..... $2 10
Car lots..... 2 05
Small spools 5c per 100 higher.

WRENCHES.

Acme Standard.....60%
Alligator No. 1.....85cnet
Always Ready.....50%
Coe's Standard.....40&10&5%
Agricultural.....75&5%
Ellis Adjustable.....25%
Malleable "S".....per lb. 08c
Malleable..... " 08c
Stillson Pipe.....70%

WRINGERS.

No. 22, Guarantee....per doz. $32 50
No. 110, Guarantee.... " 32 50
No. 110, Brighton..... " 23 50
No. 110, Bicycle..... " 31 50
No. 530, Royal..... " 32 50
No. 350, Universal..... " 28 00
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Canton Mfg. Co., Canton, O
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Eller Mfg. Co., Canton, O
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Conductor Pipe Machinery

Armor-Clad Mfg. Co., The, Canton, O

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Hungerford, U. T., Brass & Copper Co., New York, N. Y

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LaCrosse Steel Roof. Co., La Crosse, Wis.
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Milwaukee Corrugating Co., Milwaukee, Wis.
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St. Louis Electrotype Fdry. Co., St. Louis, Mo

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Kimball Bros. Co., Council Bluffs, Ia.

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Star Enameling & Stamping Co., Pittsburgh, Pa

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Fencing—Wire

American Steel & Wire Co., Chicago, Ill
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Fenders

Rostand Mfg. Co., The, Milford, Conn

Files

Carver File Wks, Philadelphia, Pa
Disston, Henry & Sons, Philadelphia, Pa

Firesets

Rostand Mfg. Co., The, Milford, Conn

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Bertsch & Co., Cambridge City, Ind
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Foundry Supplies

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Furnace Cement

Connors Paint Mfg. Co., Wm., St. Louis, Mo

Furnaces—Hot Air

Bonnot Co., The Canton O
Boynton Furnace Co., Chicago, Ill
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Burgess Soldering Furnace Co., Columbus, Ohio
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Gas Stoves

Stove & Range Co. of Pittsburgh, Pittsburgh, Pa

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Richards Mfg. Co., Aurora, Ill

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Pullman Mfg. Co., Rochester, N.Y

Hardware Jobbers

Clark, Quien & Morse, Peoria, Ill
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Standard Horse Nail Co., New Brighton, Penna

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American Steel & Wire Co., Chicago Ill

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Detroit Heating & Lighting Co., Detroit, Mich

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Electra Lightning Rod Co. Cresco, Ia
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Canton Art Metal Co., Canton, O
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Whitacre, J. E. Mfg. Co., Rockford, Ill

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Dixon, Jos. Crucible Co., Jersey City N. J

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Stove & Range Co. of Pittsburgh, Pittsburgh, Pa.
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Stove Pipe Thimbles

Stuber & Kuck, Peoria, Ill

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Nickel Plate Stove Polish Co., Chicago, Ill

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Dixon, Jos. Crucible Co., Jersey City, N. J.

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Manufacturers Stove Repair Co., Chicago, Ill.
U. S. Stove Repair Co., Minneapolis, Minn

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Brauer, A. G., Supply Co., St. Louis, Mo

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Hungerford, U. T., Brass & Copper Wks New York, N. Y

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Lufkin Rule Co., Saginaw, Mich

Technologist

Hooper, C. N. Dubuque, Iowa

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Harrington & King Perforating Co., Chicago, Ill

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Burgess Soldering Furnace Co., Columbus, Ohio
Clayton & Lambert Mfg. Co., Detroit, Mich
Diener, Geo. W. Mfg. Co., Chicago, Ill
Turner Brass Works, Sycamore, Ill

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Armstrong, Blum Mfg. Co., Chicago, Ill
Auld & Conger Co., Cleveland, O
Berger Bros. Co., Philadelphia, Pa
Bertsch & Co., Cambridge, Mass
Lufkin Rule Co., Saginaw, Mich
Niagara Machine & Tool Works, Buffalo, N. Y
Robinson Mfg. Co., J. M., Cincinnati, O
Smith & Hemenway Co., New York, N. Y
Wagner, C. DeWitt, Cedar Rapids, Ia
Weiss & Co., H., New York, N. Y

Tinplate

American Sheet & Tin Plate Co., Pittsburg, Pa
Eller Mfg. Co. Canton, O
Follansbee Bros. Co., Pittsburgh, Pa
Merchant & Evans Co., Philadelphia, Pa
Wheeling Corrugating Co., Wheeling, W. Va

Tinware Trimmings

Berger Bros. Co., Philadelphia, Pa

Tools, Etc.

North Bros. Mfg. Co., Philadelphia, Pa

Tools—See Carpenters' Tools

Tools—Linemen's

Smith & Hemenway, New York, N. Y

Trowels

Avery Stamping Co., Cleveland, O
Disston, H. & Sons, Inc., Philadelphia, Pa
Griffin Mfg. Co., Erie, Pa

Tubing—Brass and Copper

Hungerford, U. T., Brass & Copper Co. New York, N. Y

Tubing—Heavy Tin

Dieckmann, Ferdinand, Cincinnati, O

Ventilators

Badger Steel Roofing & Corrugating Co. La Crosse, Wis
Berger Mfg. Co., Canton, Ohio
Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Eller Mfg. Co., Canton, O
Friedley & Voshardt, Chicago Ill
Globe Ventilator Co., Troy, N. Y
Merchant & Evans Co., Philadelphia, Pa
Pullman Mfg. Co., Rochester, N. Y
Uno Ventilator Co., Lynn, Mass

Wall Register—Fittings

Meyer & Bro., Co., F. Peoria, Ill

Washers

Columbus Bolt Works., Columbus, O

Washing Machines

Brammer, H. F., Mfg. Co., Davenport, Ia
Paxton & Gallagher, Omaha, Neb
White Lily Mfg. Co., Davenport, Ia & Toledo, O

Wire

American Steel & Wire Co., Chicago Ill

Wire Goods

Denning Wire & Fence Co., Cedar Rapids, Ia
Pittsburgh Steel Co., Pittsburgh Pa

Wants and Sales

For Paid Yearly subscribers THE AMERICAN ARTISAN will insert under this head advertisements of six lines WITHOUT CHARGE for employers wishing to secure employes, persons seeking situations, parties desiring to purchase a business, businesses for sale, partners wanted, to exchange, etc. Those who respond to these announcements will please mention that they "READ THE ADVERTISEMENT IN THE AMERICAN ARTISAN."

BUSINESS CHANCES.

PATENTS NUBERT E. PECK 623 F. Street, N. W., Washington, D. C., Consulting Expert in Patent Causes. U. S. and Foreign Patents. Send for leaflet on "Rejected Patent Applications."

For Sale—An exceptional opportunity for an experienced hardware man with some capital. Stock will invoice less than $6,000. Did $20,000 business last year. Located county seat town in eastern Nebraska. Only one competitor. Will sell or lease buildings. Am almost sixty years old and have been actively engaged in the hardware business in present location for almost thirty years. Failing health is reason for selling. Address John Horst, Madison, Nebraska.

For Sale—Hardware, tinshop and furnace business. On main business street on the west side, Chicago. Not a "dead one." Invoice between $6,000 and $7,000. Address "M-89," care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 2-3t

Wanted—Good running stock hardware in exchange for Minnesota or Canada land. Must bear investigation and at right price. Address "M-92," care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago, Illinois. 2-3t

Wanted—Bankrupt, salvage or bargain stocks of hardware located in Ohio, Indiana or Southern Michigan. Address "M-90," care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 2-3t

Agents Wanted—To handle a quick selling and profitable specialty. Address Terrell's Equipment Co., Grand Rapids, Mich. 2-3t

For Sale—One of the most complete stocks of hardware in a fine northern Illinois city of 10,000 inhabitants. This stock will invoice from $8,000 to $10,000. Have a full equipment of Warren fixtures and everything in first-class shape. Would take well located residence property as part payment. Address "M-91," care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 2-3t

For Sale—A tinshop and pump business. Good tools. Big trade. Poor health reason for selling. A snap for some one. Address Lock Box 185, Brashear, Missouri. 1-3t

TINNER'S TOOLS.

Wanted—One set second-hand wide double seamers; one 30-inch second-hand folding machine. Must be cheap and in good order. Address P. O. Box 56, Sewanee, Tennessee. 3-3t

HELP WANTED.

Wanted—A tinner with hardware experience. Good positon for the right man. Address M-93, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 3-3t

Wanted—A man to do plumbing and tinning. Prefer one that can help in store when not busy in shop. Address, or call, stating wages wanted for steady job, F. H. Carman, Watseka, Illinois. 3-3t

Tinner Wanted—With two or three years' experience in a country shop. Address Wm. Weidenbach, Manteno, Illinois. 3-3t

Wanted—A good first-class tinner to do in and outside work. Good wages. Work the year around to the right man. Must be steady and sober. Address M-94, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 3-3t

Tinner Wanted—Who can do furnace work, plumbing and heating. $13.00 per week for right man. Steady position the year around. Good country town of 1,400 in southern Minnesota. Address M-95, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 3-3t

Situation Wanted—By young tinner. Five years' experience at all around work, especially furnace work. Some knowledge of plumbing. Address Gust Niebuhr, 824½ Second Ave., Spokane, Washington. 3-3t

Wanted—A stenographer and bookkeeper. One acquainted with the hardware business preferred. None but stenographer need apply. Address W. W. Wheeler & Son, Harlan, Iowa. 2-2t

Wanted—At once, a good tinner with some knowledge of plumbing. Must be good mechanic. Steady work for right man. Address M-88, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago.

SITUATIONS WANTED.

Situation Wanted—Tinner with experience in heating, plumbing and gas fitting. Strictly sober. Can take full charge of shop if necessary. Will consider job for three months or by the year if satisfactory. Wages must be good. Address Lock Box 143, Vinton, Iowa. 3-3t

Situation Wanted—By tinner, 16 years' experience at in and outside furnace and job work. State wages. Address M-84, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 1-3t

SPECIAL NOTICES.

FOR SALE

Four sizes of up-to-date Oak Heater iron patterns filed, fitted and follow boarded, ready for the sand in 12 inch, 14 inch, 16 inch and 18 inch bodies. Can be had cheap if taken at once. Apply to Quincy Pattern Co., Quincy, Illinois. 25-4t

Sheet Metal Worker Wanted

With experience operating power cornice press, one familiar with fireproof metal window frames. Steady employment. State experience and wages expected. Address F-10, care of THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago. 17-ufn

Salesmen Wanted

High class men desired. Choice territory offered. Good salary. Should be acquainted with steam, hot water and hot air heating. Address Richardson & Boynton Co., 20 Lake St., Chicago. 26-4t

GOOD TINSMITH WANTED

(Tinner and Plumber preferred) with a chance to take half interest in a fine established general hardware business in a city in Wisconsin. A good chance for the right man to get a well paying steady job or a partner in the business. Address "B-6" care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 2-2t

Good Chance

For a good tinner or hardwareman; a fine stock of general hardware (no farm machinery) and stoves and tinshop for sale together with two story solid brick building and warehouse in as fine a city and community as you can find in Wisconsin. Address B-7, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 2-2t

STOVE SALESMAN WANTED

We want a young man who can furnish good references as to character and habits who has had experience either on the road or in retail hardware store to sell Moore's stoves. In answering state age, nationality, experience. Address Moore Brothers Company, Joliet, Illinois. 2-3t

Tinner AND Furnaceman

WANTED in every city in United States to know that I have a good proposition, Let me hear from you. Address O. W. Ilten, Cedar Rapids, Iowa. 2-4t

EXTRAORDINARY BUSINESS OPPORTUNITY

With small amount of cash you can acquire established business making superior stoves and heaters, from new patterns with exclusive features adapted for dealers' trade or direct selling plan. On account of ill health will sacrifice twenty thousand dollars. No real estate investment. Address B-5, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 1-3t

Six Salesmen Wanted

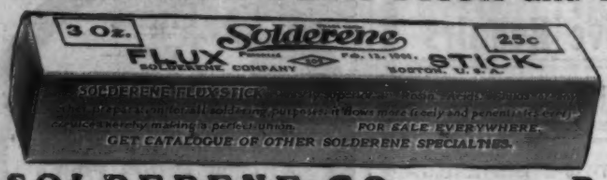
To sell general line of hardware, cutlery, tools, etc. Territory tributary to Chicago. Address Trout Hardware Co., 49 East Lake St., Chicago. 2-2t

Put That Advertisement in THE AMERICAN ARTISAN If You Want Results

Wanted to Buy Patent for Sheet Metal Window Frames

Shop Rights to manufacture in Illinois an accepted fire proof metal window frame and sash. Enclose drawing and state price. Address "Illinois", care of THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago. 17-ufn

SOLDERENE FLUX STICK and FLUX PASTE



Two specialties of unusual merit for all general purposes in the factory, laboratory or on the job.

Economical, Waterproof, Odorless, Non-Corrosive, and will not evaporate or rust.

WRITE FOR OUR TERMS TO THE TRADE.

SOLDERENE CO., Boston, Mass.

SPECIAL NOTICES.

SALESMAN WANTED

To carry a good line of Stove Polish as a side line. Cash commission basis. Address for full particulars, K-25, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago.

1-4t

C. N. HOOPER, Dubuque, Ia.

Vitreous Enameling TECHNOLOGIST

Designs, builds and starts new plants, improves quality and reduces the costs in those already established.

THE SALE OF

Black SILK Stove Polish

has been increasing for twenty-five years. This will be our banner year.

Used by stove manufacturers and dealers and on stoves for exhibition. Buy from your jobber.

BLACK SILK STOVE POLISH WORKS, Sterling, Ill.

EVERY LITTLE BIT HELPS

BE PROGRESSIVE **MAKE MORE MONEY**

If you have a Tin Shop or Sheet Iron Works you may **add a profitable branch** to your business manufacturing patented sheet iron articles for us. Sell from one to several hundred dollars each. **One man cleared $600** in the last twelve months in this side line. A contract would be an asset in your business.

Information FREE **Trial Patterns FREE**

Pin this ad to your letterhead and mail to us for full details.

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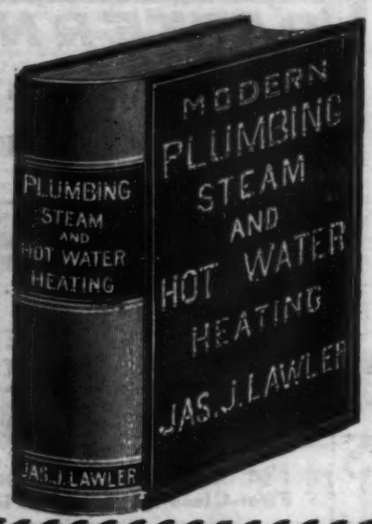
Modern Sanitary Plumbing.

Steam and Hot Water Heating.



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A reviewer in speaking of this book says:

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Any kind or color, for cast iron and sheet steel, with full instructions.

Start now—and improve quality of ware in old plants.

Thirty-four years' practical experience.

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the "Proven Shield for Steel Work." Durability records in all climates; write for a few.

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Fair Treatment Low Prices Prompt Shipments
We Will Give You Satisfaction.

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REPAIRS TO FIT ALL STOVES AND FURNACES

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Light, smooth, full measure and guaranteed perfect. Made from original patterns. Metal, the right kind in the right place. Ask your jobber for them or write us.

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These Two—

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Heavy Stove Plate Facing

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will give you clean, smooth castings with that dark-blue color you like to see. Let us send you a barrel of each on approval.

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YALE
Russia Finish, pat. lock
Stove Pipe

It is made of a very high grade of uniform color Blue Polished Steel, and is coated to prevent rusting. Made in all sizes. Packed twenty-five and fifty joints to crate. For sale by the jobbing Hardware Trade throughout the United States. Mfg. by HEMP & CO., 2nd & Chouteau Ave. ST. LOUIS.
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For Stoves and Heaters
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First-Class in Wood and Iron
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Also a full Line of Galvanized Iron Leader Gutters, Ridge Roll, etc.

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Shingles that last

Made from Galvanized Tin and Painted Tin
Storm, Rust and Fire Proof
Do you want to increase your business? THIS IS YOUR OPPORTUNITY. Write for catalogue samples and prices.

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"Apollo Best Bloom" Galvanized Sheets

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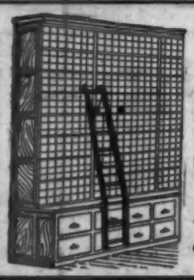

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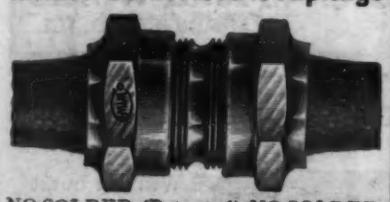

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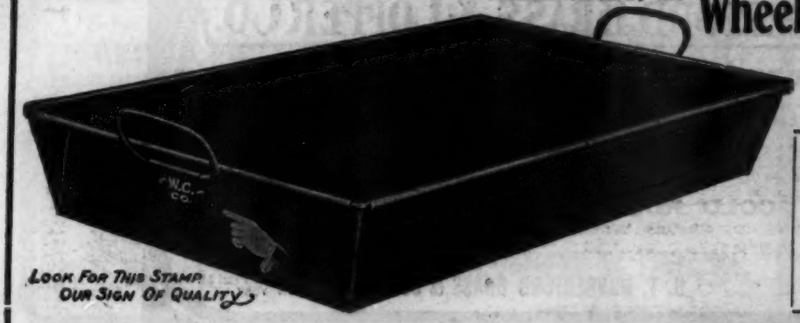

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Wire Detachable Hinge and Wire Locking Device,
Superior in Material and Workmanship. HIGH GRADE UNIFORM QUALITY.
Made with Four Raised Points or Feet, which raise the Pan from the Oven Floor, leaving Space for Circulation of Air. PREVENTS BURNING.
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Pans, upper and lower, are the Same Size. and Indented Top and Bottom.
Dripping Rack for Bottom Pan.
In all its Good Points the Crescent HAS NO EQUAL.
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Have no Cross Seams. Made of Galvanized Iron in ten-foot lengths. [redacted] Will not burst when full of ice.

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GALVANIZED
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MOST ORNAMENTAL AND LOWEST PRICED MADE

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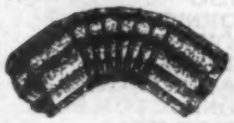

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Each Sheet Stamped with Brand and Thickness.

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Makers of the Elbows which can be erected without Refitting and Solder, save Labor and Material.

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Perfect Art
METAL CEILINGS

WHICH ARE

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Drop us a postal NOW and we'll send illustrations and tell you more about them.

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Special Designs Submitted on Request

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Perfect Joints

Absolutely Dust-Proof

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Takes LIQUID Only
Cassens' Ideal Eaves Trough

excludes trash of every description. Sand, Leaves, Snow, etc. absolutely cannot enter the trough, but it will take from 125 to 180 gallons of water per running foot in one hour.

Write for descriptive matter and exclusive territory.

Traveling Salesmen wanted to carry the IDEAL as a side line.

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The
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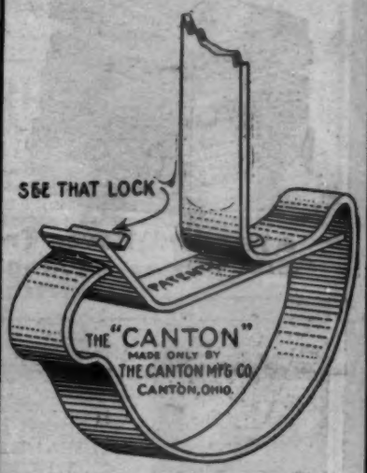

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Manufacturers of Cornice, Skylights, Ventilators, Metal Ceilings, etc.

HENKEL'S AUTOMATIC RAIN WATER SHIFTER

Guarantees Pure Water in Your Cistern

It permits only pure, clean rain water to enter the cistern. It automatically carries the first sooty, filthy drainage from the roof to the waste pipe, and not until the water runs clear and pure does it go into the cistern.

IT IS AUTOMATIC—SET IT ONCE

No more going out in the rain—no more trouble or cleaning cisterns—pure, clean water always.

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Uno Revolving Ventilators

A sure cure for smoky chimneys, the best for ventilation.

4" to 30"

Send for catalogue

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SHELF BOXES
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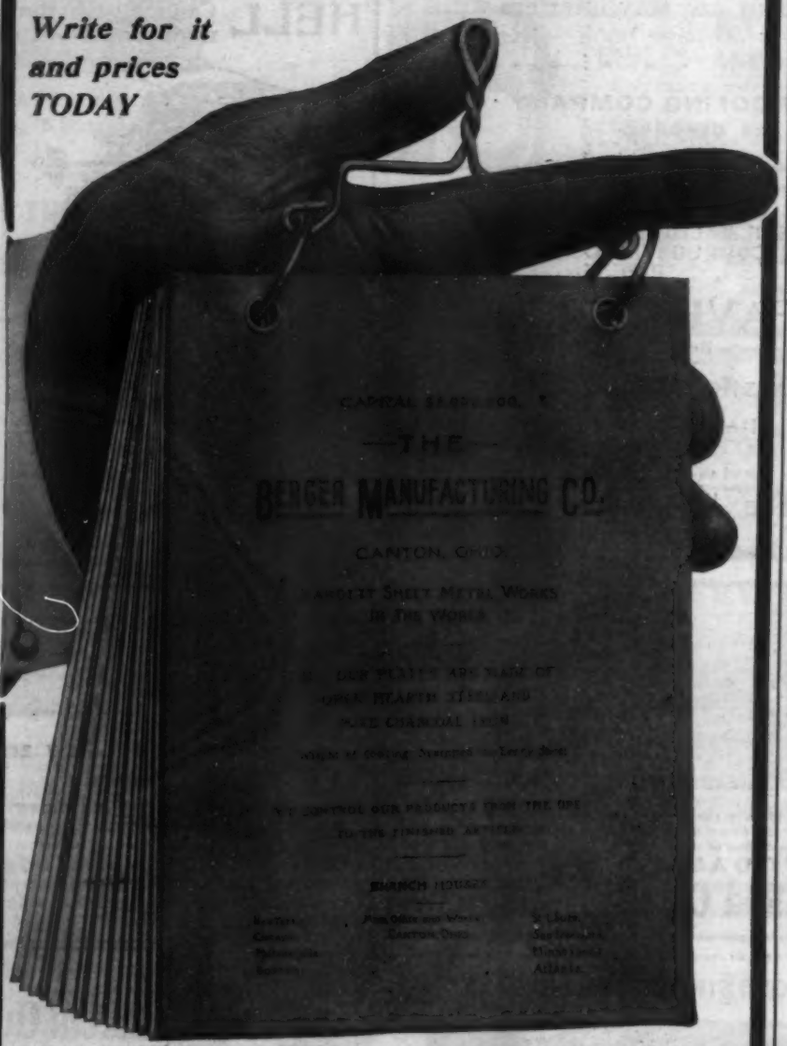
This Pack of Roofing Plate Samples Looks Mighty Good to Those Who Have Seen It

Write for it and prices TODAY



THE BERGER MFG. CO., Canton, Ohio

NEW YORK BOSTON PHILADELPHIA CHICAGO
ATLANTA ST. LOUIS SAN FRANCISCO MINNEAPOLIS

The LENOX HOTEL
BUFFALO

Modern. High Grade. Fireproof.

OUR OWN RAPID ELECTRIC CARRIAGES, EXCLUSIVELY FOR PATRONS, operate continuously every few minutes from Hotel through Business District and to all Depots for principal trains.

EUROPEAN PLAN.

Rates $1.50 per day and upward.

GEORGE DUCHSCHERER, Proprietor

Blick No. 3 The Best Box
For Rural Free Delivery

Be Just With Customers

Sell them Blick No. 3 boxes. They are big ones, 6½ x 8½ x 19 inches. Made of heavy galvanized steel. Painted green, the new government color. Same shape and color as city boxes. Have Positive Locking Flag Signal, Automatic Latch, Watertight Quality. Every box tested, every box right, every box warranted. They will get the business. You better get them. Order now.

$5.88 per Doz.

Blick - Williams Co.
Indianapolis, Ind.

ELECTROTYPE CUTS
MADE TO ORDER FOR ALL PURPOSES.
IF YOU WANT THE BEST MADE,
SEND US YOUR ORDER,
WE ARE PROMPT.
PRICES ARE EQUITABLE AND JUST.
ST. LOUIS ELECTROTYPE FOUNDRY,
214-216 PINE ST. ST. LOUIS, MO.

NOW! for Your Catalog Requirements

GATCHEL & MANNING
DESIGNERS · ILLUSTRATORS · ENGRAVERS
PHILADELPHIA
Consult us for PLATES to print in one or more colors on a type press for CATALOGUES, ADVERTISEMENTS, SOUVENIR POST CARDS, COMMERCIAL WORK ....

Mention this Paper and Send for Samples and Circulars

IF YOUR ROOF IS CORTRIGHT IT'S WATER-TIGHT

Here's what an old tinner says about CORTRIGHT:

Gentlemen:—
I am pleased with your roofing, and like to put it on. I wish I had gotten hold of it long ago. I am almost 74 years old now, but I put on one square in less than two hours the other day.
Yours very truly,
M. COLLINS, Lineville, Iowa.

One square of Cortright Roofing measures 100 square feet. Think of it—a man 74 years old laying that in less than two hours—that's why it pays to lay CORTRIGHT SHINGLES,

It's easy and profitable—besides they open a new field for the tinner and don't in any way interfere with plain tin roof work. Send for 56-page book—"Rightly Roofed Buildings"—free.

CORTRIGHT METAL ROOFING COMPANY
PHILADELPHIA and CHICAGO

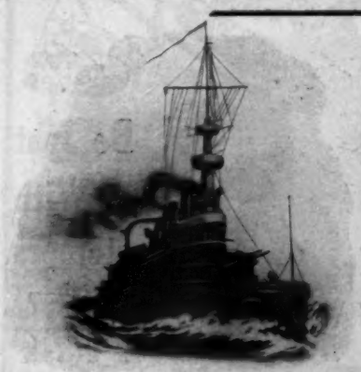
Ask Your Dealer For The

Sem

Soldering Furnace

And You Will Make No Mistake

Always Ready—No Smoke—No Odor—No Noise—Unexcelled—Unequaled—Unrivaled—Safe—Sure—Durable.
Galvanized Iron, Brass or Copper Reservoir
Equipped with Cylindrical Slotted Burner
MADE ONLY BY
BURGESS SOLDERING FURNACE CO.
COLUMBUS, OHIO, U. S. A.



Manufacturers of
PIPE MACHINERY for ROUND and CORRUGATED CONDUCTOR PIPE, Etc.

EAVES TROUGH

Beaders and formers

Dies for Metal Shingles, Etc.

HANGER DIES and DIES of ALL DESCRIPTION

Send us your Specifications for Prices.

The Armor-Clad Mfg. Co.
CANTON, OHIO

HELL Cannot be hotter than our No. 10

Noiseless, No Odor, No Smoke.
More Heat with Less Fuel.
Greatest Range of Heating.
3 to 12 lb.
Coppers Indoors or on a Roof.
Order of your Jobber, or we will ship direct for $6.50, on 30 days approval.
GEO. W. DIENER MFG. CO.
77-83 West Lake St., Chicago

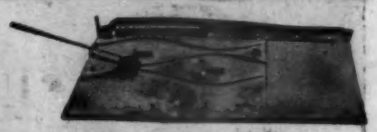
We have the best Pure Copper Cable

Lightning Rods

and fixtures on the market, and to prove what we say is right, we are willing to send any firm a sample outfit and they can look it over, and if it is not the best they have ever seen, and not satisfactory in every way, we want the whole shipment returned at our expense and it costs them nothing. We manufacture all our own goods and know just what they are, and we want every hardware dealer to write to us for prices and territory. We give a $500.00 guarantee and also one of our improved static machines.

WRITE TODAY TO

Maher & Son Lightning Rod Co., Preston, Iowa



The Wagner Patent Elbow and Slitting Shears

Will save time and money in making elbows and when used in connection with a cornice brake light iron can be cut any width and length. Buy a set before your competitor does. These shears are thoroughly guaranteed to give satisfaction or no sale. Made by
C. DeWITT WAGNER, Cedar Rapids, Iowa

"ELECTRA" PURE COPPER LIGHTNING RODS AND FIXTURES

NOTHING BETTER PRICES RIGHT WRITE US
To convince you we mean what we say, let us ship you an outfit upon approval. If you don't like it, you may return it to us at our expense
ELECTRA LIGHTNING ROD CO., 220-240 Market Street, CRESCO, IOWA

STANDARD HORSE NAIL CO.
NEW BRIGHTON, PA., U.S.A.
MANUFACTURE
A Full Line of Horse Nails
Send for Catalogue, Prices & Samples.

MADE RIGHT—WORKS RIGHT

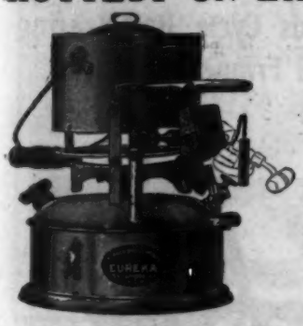
No. 1 Fire Pot $4.00 Net.

With a No.1 fire pot you can quickly do more and a greater variety of work with less expense than with any other fire pot made. The superior generating power of the burner is manifest by highest heat efficiency on half the gasoline others require. Power and quality, durability and economy, compactness and utility characterize the No. 1. A little booklet (free for the asking) fully explains the many points of advantage that have made the No. 1 indispensable to wide awake mechanics.

Jobbers supply at factory price, or we will ship direct, if cash accompanies the order.

CLAYTON & LAMBERT MFG. CO., Detroit, Mich., U.S.A.

HOTTEST ON EARTH



Let us prove it.

A trial order will convince you.

No. 6 Eureka, price each, $6.00 net
No. 14 " " " 4.50 "

Jobbers sell at factory price

The TURNER BRASS WORKS
26 Park Avenue, Sycamore Ill., U. S. A.

SKYLIGHT GEARING AND Chain Lifts

Tinsmiths, Plumbers, Cornice Makers and Coppersmiths

TOOLS

Pipe Threading Machines

Second Hand Goods Bought and Sold

H. WEISS & COMPANY
20 Cliff Street, NEW YORK

Combined Punch and Squaring Shear

(Hand Power)

This Combined Punch and Squaring Shear is designed especially for Range Manufacturers, for squaring, trimming or slitting, or for cutting rectangular or triangular holes of any size in the center of large sheets. We build a complete line of Shears, Punches and Bending Rolls, all sizes, for either hand or belt drive. Write for Catalog "F."

BERTSCH & CO. Cambridge City, Ind.

DISCRIMINATING DEALERS ENDORSE "ELLER"

ART METAL CEILINGS

TIN AND TERNE PLATE
EAVES TROUGH, CONDUCTOR PIPE
ELBOWS and SHOES

STEEL ROOFING
BRICK and STONE SIDING
CORNICE and SKYLIGHTS

"The ELLER trade-mark stands for the best in steel." *Write to-Day* for Catalog.

ELLER MFG. CO. : : CANTON, OHIO

FREE CATALOGUE to anyone for asking showing complete line of **TINNERS' AND ROOFERS' SUPPLIES.**

Large stock, great variety, prompt shipments.
Get our prices.

BERGER BROS. CO., OFFICE AND STORE, 237 Arch St.; WAREROOMS, 100-02-04 Broad St.; FACTORY, 3114-16-18-20 N. 17th St., PHILADELPHIA.

Tools for Sheet Metals

Double Cutting Shears.

INCLUDING

Tinners' and Roofers' Tools, Shears Punches Presses and Dies, Can-Making Machinery.

MADE BY

Niagara Machine & Tool Works, Buffalo, N. Y.

MARVEL

Patent applied for

PORTABLE PUNCH No. 20

Made entirely of STEEL

Punches ¾ in. hole in ¾ in. and equivalent

Let us send you one on trial.

Write for circular and price of this and other Marvel Punches and Shears.

ARMSTRONG-BLUM MFG. CO.,
106 N. Francisco Ave., Chicago, Ill.

C. G. Hussey & Company

PITTSBURGH, PENNA.

Manufacturers of

Soft Copper, Copper Gaskets, Copper Bottoms, Soldering Irons
Copper Nails and Tacks, Tinned Copper, Polished Copper,
Cold Rolled Copper, Special Shapes Sheared or Stamped Slating Nails.

PROMPT SHIPMENT FROM STOCK.

100 Tinners' Patterns

Complete for **$1.00**

Sent Postpaid on Receipt of Price.

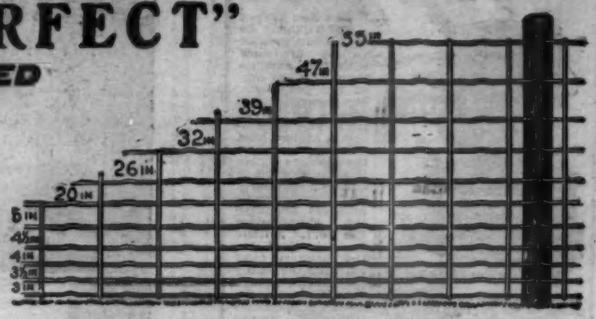
DANIEL STERN, 355 Dearborn Street, CHICAGO.

THE VERY STRONGEST FENCE MADE

"PITTSBURGH PERFECT"

ELECTRICALLY WELDED

Fences



will curb in the strongest beasts. Can be adjusted to uneven ground. Are a sure cure for all fence troubles and will last longer than any other on the market. Dealers wishing to handle a line of goods which will prove ready sellers should carry the

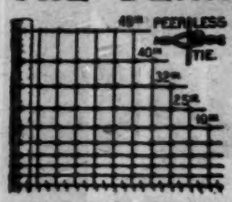
"Pittsburgh Perfect Brands"

of Wire Rods, Bright Annealed and Galvanized Plain Wire, Barbed Wire Wire Nails, Fence Staples, Steel Hoops, Bands and Cotton Ties.

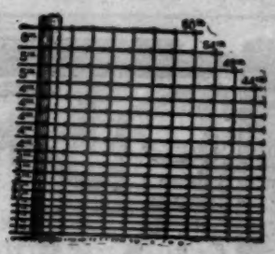
MANUFACTURED BY THE

Pittsburgh Steel Co., Pittsburgh, Pa.

THE DENNING FENCE



For yard and pasture has no equal. Our Peerless Cabled Fence with barb wire in the bottom turns hogs, absolutely. We beat the world on Poultry Fence. We make perfect Barb Wire. We ship mixed cars Woven Fence, Barb Wire and Nails.



Write for Catalog and Prices.

THE DENNING WIRE & FENCE CO., Cedar Rapids, Iowa.

FREEZERS

THAT EXCEL IN
Easy Running
Quick Freezing
Economy
Convenience
Practical Results

THAT ARE
Well Advertised
In Demand
Easily Sold
Satisfactory in Use
Of Known Reputation

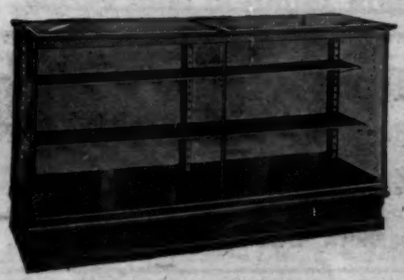
"LIGHTNING" "BLIZZARD"

THE "BEST MADE" because in practical use, they are convenient, compact in size, use smallest amount of ice and salt, run easily, freeze quickly, produce smoothly frozen creams or desserts with little bother and less work. We make also

MACHINE FREEZERS AND ICE BREAKERS

Sold by Leading Jobbers Catalog Sent Free

NORTH BROS. MFG. CO. Philadelphia



WOLVERINE KNOCK-DOWN CASE

Drawing Dollars Your Way

The best advertisement you can have is a bright, cheerful store, with up-to-date fixtures and show cases. The best moderate-priced show case you can buy is the

Wolverine Knock-Down Case

This case sets a new standard in popular priced cases. With heavy plate glass top, finished in handsome golden oak, with ball-bearing sliding doors, every merchant wonders how we can sell them at $5.00 a ft.

If you are interested in show cases, do not fail to write for full information about the Wolverine. *Write to-day for our special 60-day offer.* Address Dept. C.

MICHIGAN SHOW CASE CO.
51-53 Fort St. E., DETROIT, MICH.

Richards Cycle Ball-Bearing Steel Frame Grindstone

EASY TO SELL

Built on up-to-date mechanical principles. Stone guaranteed best quality Berea grit for general grinding. The frame is the strongest and most rigid on the market on account of its peculiar construction.

Made by
The Richards Manufacturing Co.
Aurora, Illinois

Revolving Cases

for Bolts, screws, etc. SAVE TIME and MONEY

A necessity for Hardware Dealers, machine shops, pattern shops and in fact any one who handles small articles. Last indefinitely. Made octagonal or square as desired; also with blank drawer fronts with label holders. Descriptive booklet sent on application. Sold by all first class Hardware Dealers.

AMERICAN BOLT & SCREW CASE CO
Dayton, Ohio

Thompson Bros., Muscatine, Ia.
Write: "Please stop our ad. for Timer. The first issue brought results."

LUFKIN Measuring Tapes

are made in every conceivable variety, to suit every purse and purpose, but all of the same superior quality.

¶ Our extensive advertising creates a demand, that every progressive dealer should be able to satisfy.

¶ It takes but a minute and a postal to ask for our catalog—it's more than worth while.

THE LUFKIN RULE CO. Saginaw, Mich., U. S. A.

New York London, Eng. Windsor, Ont.

Please Mention The American Artisan

DISSTON SAWS

Run Easiest
Cut Fastest
Last Longest

To the practical Saw User this tells the full story of HIGHEST PERFECTION in Material, Temper, Design and Workmanship attained for the DISSTON BRAND OF SAWS.

HENRY DISSTON & SONS, Inc.

Keystone Saw, Tool, Steel and File Works

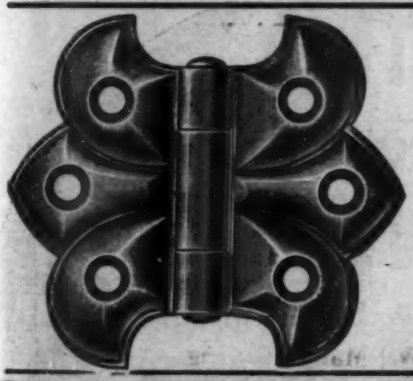
PHILADELPHIA, PA.

A NEW PATTERN STANDARD LEVEL—Two Level Glasses, One Plumb Glass

Side glasses may be reversed at any time; all easily adjustable; all glasses in plain view from both sides; brass trimmings on both sides.

No. 31—Solid Cherry.
No. 32—Three-piece Cherry.
No. 33—Solid Mahogany.

THE BAKER - McMILLEN COMPANY, Akron, Ohio.



STRAP and T HINGES—BUTT HINGES

Also a complete line of Shelf Brackets, Barn Door Hangers, Door Bolts, etc. Our wrought surface hinges are strong, massive and beautifully finished, and every one perfect. All Goods Guaranteed.

WRITE FOR COMPLETE CATALOG.

THE GRIFFIN MFG. CO. 1500 Cherry St., Erie, Pa.

THE TAYLOR & BOGGIS FOUNDRY CO.

CLEVELAND, OHIO

Manufacturers of

Light Gray Iron Castings

BUILDERS' HARDWARE, DAMPERS AND DAMPER CLIPS, OIL AND GAS STOVES, FURNACE LAMPS, MOLASSES GATES, LETTER BOXES, HARDWARE SPECIALTIES.

JUNIATA HORSE SHOES

The experience of forty-five years of progressive manufacture makes Juniata horse and mule shoes perfect in shape, finish and quality of metal.

The true worth of the Juniata shoe begins at our mines and continues through our blast furnaces where the different ores are amalgamated. In our own melting processes the character of the metal is established, and from thence through our rolling mills is given the final and unchangeable quality.

Then comes the cutting, shaping, creasing and punching, to do which our old Shoenberger mill in Pittsburg is equipped with every known modern appliance and facility, superintended and manned by men who have spent their lives in becoming masters, each in his particular line.

We offer the Juniata shoe as the product of the greatest mines, steel producing plants and fabricating mills in the world; and with these good facilities and the old and skilled employes back of them, is maintained the highest standard of excellence possible for human ingenuity to produce.

BECAUSE

HE HAS

DELTA FILES

WITH

CLEAN STRONG SHARP TEETH

Backed With Honest Material

TRADE MARK

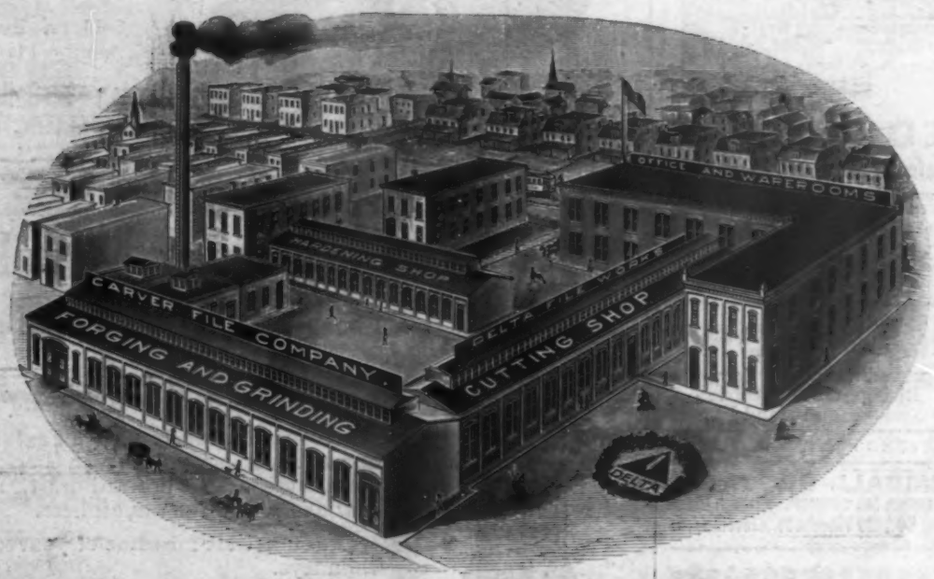
DELTA

FILES OF QUALITY

We can show you that DELTA FILES cut quicker and last longer than any others. Ask your dealer for Delta Files and be convinced.

FILES OF QUALITY

The Highest Grade File Made



The File You Will Eventually Use

DELTA FILE WORKS

Philadelphia, Pa. U. S. A.

CARVER FILE COMPANY, Proprietors

We are an independent organization not connected with the trust in any form, shape or manner

MAR 20 1903

Here's Your Razor

THE WONDERFUL

"SHRP-SHAVR" 25c SAFETY RAZOR

which consists of two simple parts—the frame and the blade. The frame is satin finish silver-plated, holding blade at exact angle for safe, quick and easy shaving. The blade is of the finest tempered steel, scientifically ground, honed and stropped to the keenest edge. Adjusted or released from frame in an instant. We sell you the whole razor at 25c, so as to create a market for our blades.

Guaranteed—

"Want It."

"Two Blades."

Order through your jobber or our house

SHRP-SHAVR MFG. CO.

108-110 Duane St., NEW YORK CITY

25 Buy Our Blades

EVERY GALLON GUARANTEED

BUCKEYE

MIXED PAINTS

are the Paints you should handle.

Made from Pure Linseed Oil, White Lead, Oxide of Zinc and Highest Grade Coloring Material.

Send for Printed Matter.

Buckeye Paint & Varnish Co.

TOLEDO, OHIO

ELEVATORS

Improved Quick and Easy, Rising Steam, Electric and Hand Power.

SEND FOR CIRCULAR.

KIMBALL BROS. CO.

1031 Ninth St., COUNCIL BLUFFS, IOWA

Kimball Elevator Co., 139 Vincent St., Cleveland, O.

E. Miller, Warren, Ind., writes: "I don't see how I have been without THE AMERICAN ARTISAN."

THE HARRINGTON AND KING PERFORATING CO.

PERFORATED METALS

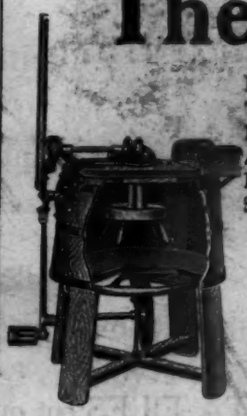
OF EVERY DESCRIPTION AND FOR ALL PURPOSES

FOR SCREENS OF ALL KINDS

No. 212 NORTH UNION STREET, CHICAGO, ILL.

New York Office, 114 Liberty Street.

The White Washer



DOUBLE BALL BEARING. FLY WHEEL UNDER THE TUB. HIGHEST SPEED. EASIEST RUNNING. QUICKER REVERSE. FOOT POWER ATTACHMENT. TUB OPENS WHEN MACHINE IS IN FULL MOTION. FIVE YEARS' GUARANTEE. SOLD TO ONLY ONE DEALER IN EACH TOWN.

Ask for Exclusive Agency and Get Acquainted With

The White Way

White Lily Manufacturing Co.

1500 Rockingham Road, - Davenport, Iowa

The "ONE MINUTE" Washer

Exclusive Jobbing Representatives for the West and Northwest

Sold on Exclusive Agency Plan Only

Paxton & Gallagher Co.

OMAHA, NEB.

Iwans' Volcano Revolving Chimney Top

Sizes 6 to 12 inches. Sold by jobbers of Hardware and Tinners' Supplies.

Notice one of its **Strong Features.** The upward sloping opening in back of hood creates a constant upward draft, no matter how depressing the atmosphere.

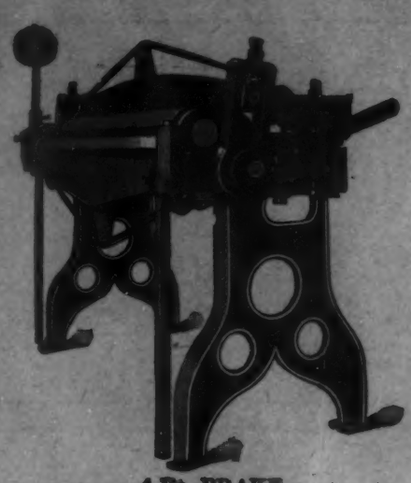
You need it for some of your customers' chimneys.

Send postal for catalogue.

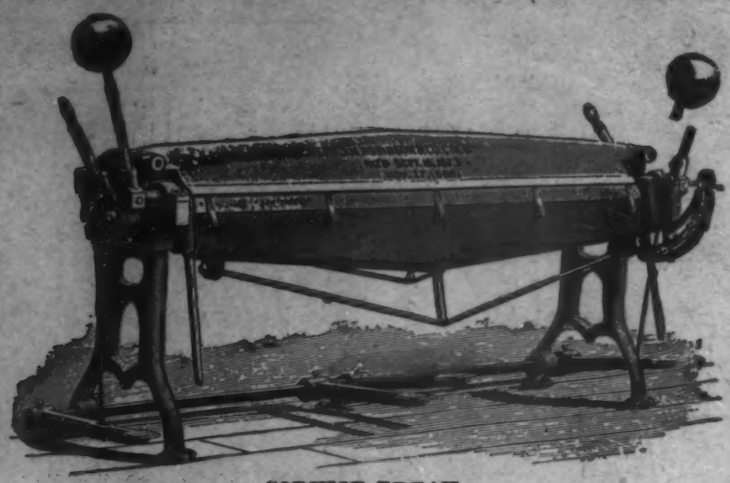
IWAN BROTHERS

Mfrs. of Hardware Specialties

STREATOR, ILL.



4 Ft. BRAKE
Capacity 12 Gauge.



CORNICE BREAK
Capacity, 20 Gauge and Lighter.

THE J. M. ROBINSON MFG. CO.

Manufacturers of Sheet Metal Working Machinery

3282 to 3288 Spring Grove Avenue CINCINNATI, OHIO

As the wind is to the sails, so is advertising to the sales.

An ad in THE AMERICAN ARTISAN will bring sales.

ENTHUSIASM!

Certainly it helps to sell your wares, but here's the rub:

You must have the kind of goods *first* and last to *produce* it and *keep* it within you.

SEE THAT MACHINE TO THE LEFT?

It will enthuse you to the full and cause you to sell the

"SPEEDY"

IN BUNCHES!

Of course you need a Sample.

Write us for prices.

Noiseless and easy running.
Pleases instantly and sells quickly.
Accident proof—all gears being covered.
Lightest weight high-speed gearing on the market.
Can be operated in either a standing or sitting position.
Guaranteed to do the work and do it right.

H. F. BRAMMER MFG. CO., Davenport, Iowa

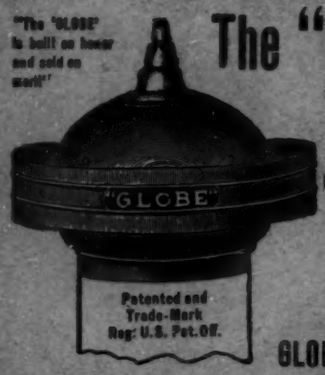
PER. NOT ENT'D.

THE IMPROVED ONE-PIECE MITER

This miter is made absolutely correct, true to shape, size, and bead, and the easiest connecting slip joint. Will save your time and temper. In case your supply house cannot furnish them, send your order direct to the

J. E. WHITACRE MFG. CO.
ROCKFORD, ILL.
Manufacturers of Sheet Metal Specialties.

"The 'GLOBE' is built on honor and sold on merit"



Patented and Trade-Mark Reg: U.S. Pat. Off.

The "GLOBE" Ventilator

in COPPER, GALVANIZED IRON and with Glass Tops for Skylight purposes.

ABSOLUTELY STORM PROOF

For Perfectly Ventilating Schools, Churches, Halls, Mills, Factory and Audience Rooms of Every Character

SMOKY CHIMNEYS CURED

"GLOBE VENTILATED RIDGING"

Send for Pamphlet

MANUFACTURED BY

GLOBE VENTILATOR CO., Troy, N. Y.

We have installed Machines for decorating Cans and would be pleased to submit estimates upon request.

STUBER & KUCK, Peoria, Ill.

BRIGHT and ROOFING TIN PLATE, BLACK and GALVANIZED SHEETS, ZINC, SOLDER, SHEET COPPER, EAVES TROUGH and CONDUCTOR, ELBOWS, WIRE, REGISTERS, TINNERS' TOOLS and MACHINES, Etc.

We sell everything a tinner needs.

FOLLANSBEE BROTHERS CO.

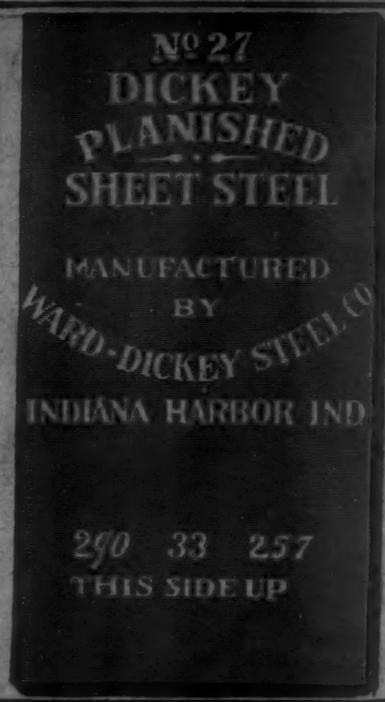
MAKERS OF

HAMMERED OPEN HEARTH ROOFING TIN

PITTSBURGH

LOUISVILLE	MILWAUKEE	ROCHESTER
BUFFALO	INDIANAPOLIS	NASHVILLE
MEMPHIS	NORFOLK	DETROIT
CLEVELAND		NEW YORK

Southwestern Distributors: STOCKHOFF SUPPLY CO., St. Louis, Mo.



"THE BEST EVER USED"

writes one of our patrons.

Others endorse our goods with the following declarations:

"My customers give your make the preference over all others."

"On a difficult shape, we tried 80 pieces of another make, and all but two broke. We made 300 of same shape from your goods and not one broke."

Booklet sent on request.

SOMETHING ALWAYS SALABLE

WE MAKE A SPLENDID LINE OF

Dinner Pails

In designs to suit all requirements, and in various arrangements.

In various capacities and in round, square and oblong shapes.

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